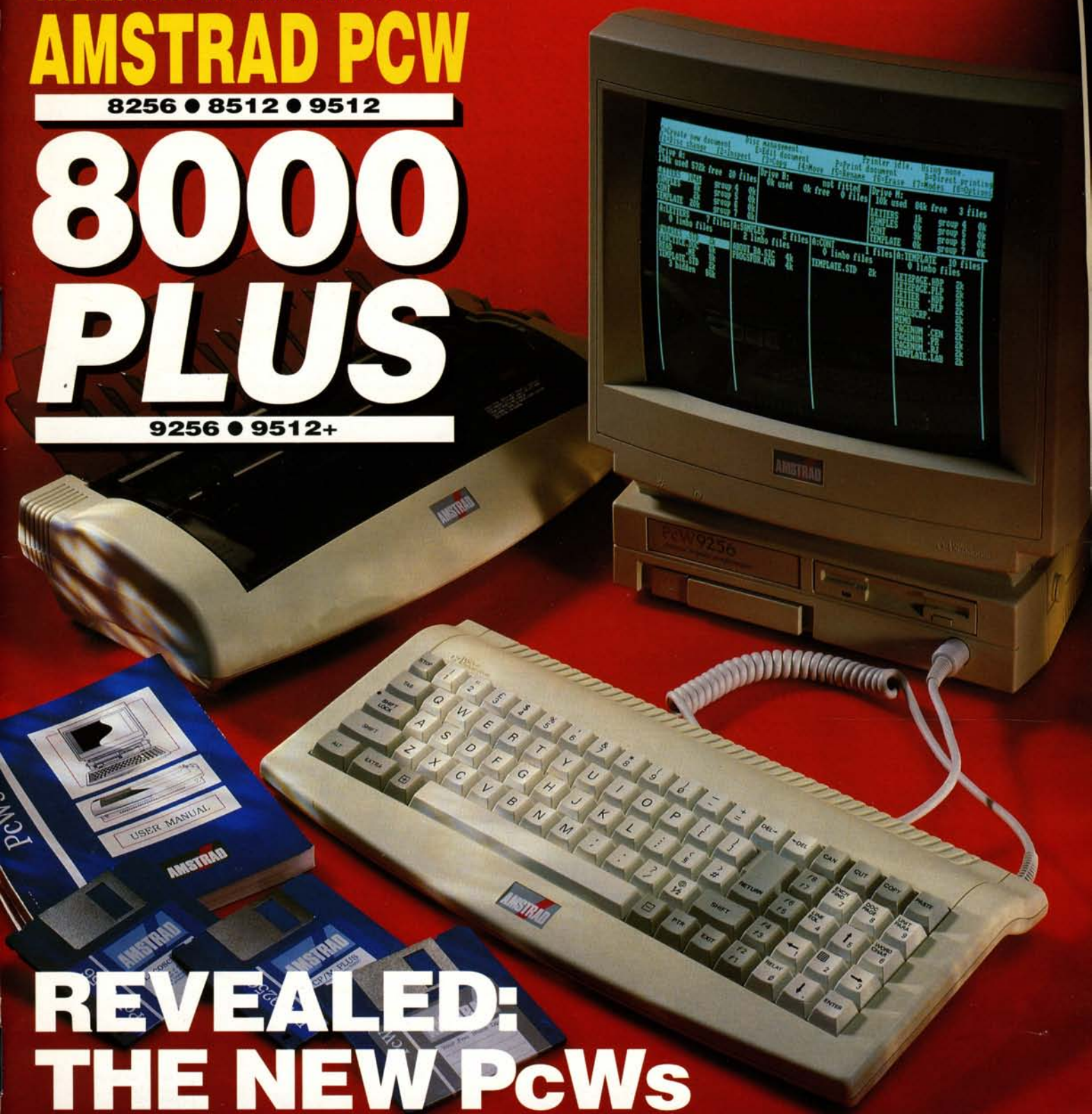


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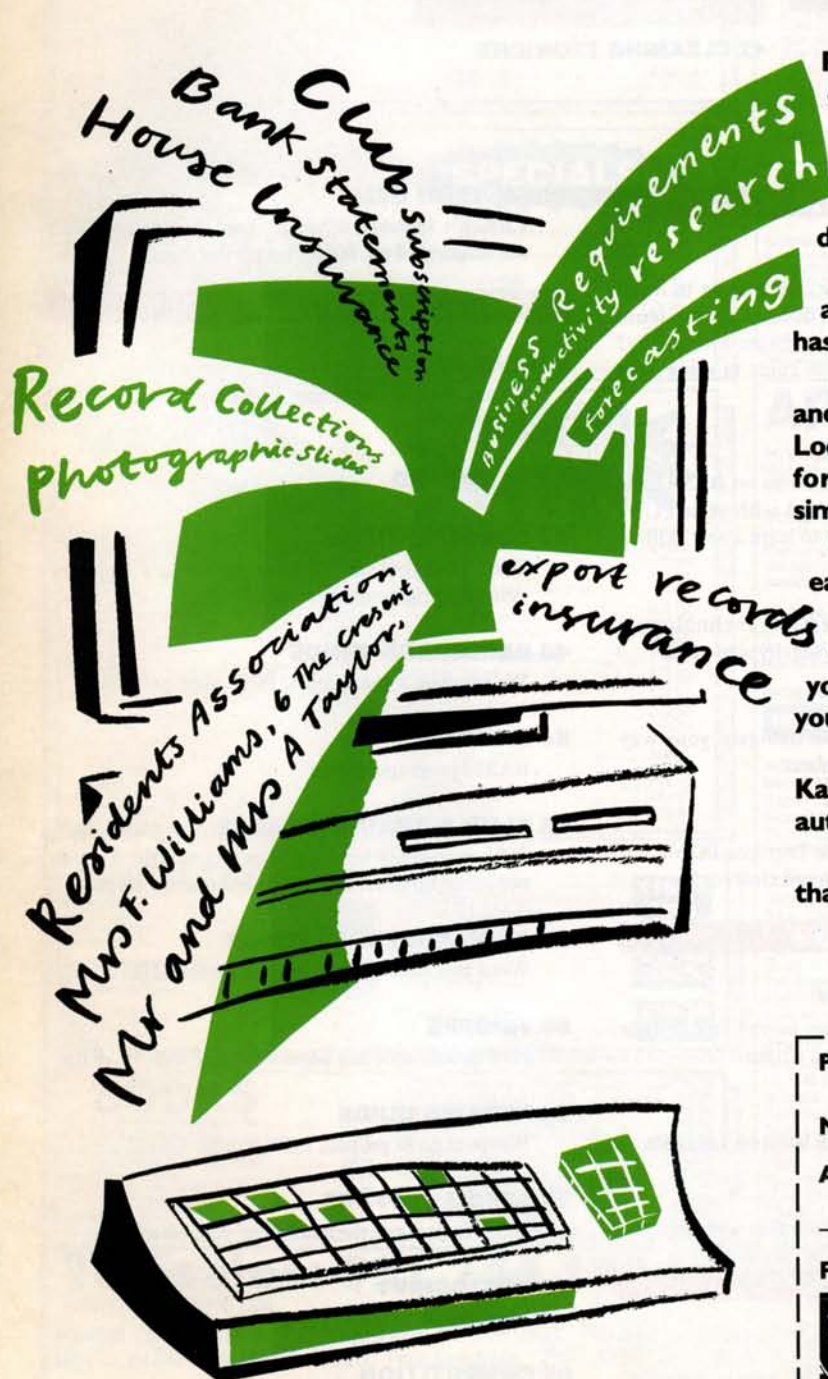
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### 82 COMPETITION

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Sophie Lankenau - Editor

Welcome to the November issue of 8000 Plus. We've been having a whale of a time this month tinkering around with the new PCWs, and the results of our investigations can be seen on page 10 of this issue. Many of you have written in with advance questions about the machines, so we've taken this opportunity to put paid to any worries you may have had about the new range. As you will no doubt be aware, the major differences are cosmetic; apart from the switch to 3.5 inch format, there is little to shock or amaze you. The machines are certainly very impressive, and we look forward to hearing about your

experiences with them. If you are the proud owner of a new machine, why not drop me a line and tell me just what you think? Your opinion could help others in their purchasing choice! In the new year, you will be noticing changes in 8000 Plus - changes which are being made in order to ensure that the magazine caters for users of all five PCWs in the range, so your input - as always - is valued.

Cirtech have shared the limelight enjoyed by the new PCWs with the release of their Gem hard disc. And what a gem it is! Cirtech have surely come up with yet another winner in their new product, and even better

news is that the disc will not break the bank. Gem is a must for anyone's Christmas list - and you even have the chance to win one in this issue of 8000 Plus!

Don't miss our brand new BASIC tutorial on page 14 - it certainly takes the fear out of the prospect of programming, and will have you hooked in no time! If you are following the series, please don't hesitate to write in with your BASIC queries. We'll do our best to answer them as the months continue.

We've a packed issue this month - so make yourself comfortable and settle down for a jolly good read!

## ON-SITE SERVICE FOR NEW PCWS

**Dictaphone announce maintenance contract prices for new 3.5 inch disc drive machines.**

Dictaphone has been quick to announce an on-site maintenance service to owners of the newly announced range of PCWs.

The company's third party maintenance division is offering one, two and three year maintenance contracts for the new PCW9256 and PCW9512+.

Prices start at just over £57 (inc VAT) for a year's upgrade on Amstrad's warranty on a 9256. This will give new users on-site maintenance for the first year they own their new machine.

For a 9512+ with a daisy-wheel printer this would cost nearly £63.50 and just over £75 for a 9512+ with a Canon bubble jet printer.

Once the warranty has run out, the prices increase. For the top of the range 9512 Plus with a bubble jet the normal price is nearly £100 including VAT.

A three year contract, covering the warranty upgrade for the first year, and two years at the normal contract price, will work out cheaper per year. For example, a three year contract on a 9512+ with bubble jet printer will cost just over £250 (inc. VAT) - a mere £84 per year.

These prices will cover all on-site visits. Dictaphone aims to respond to any call-out within two working days.

Dictaphone have a long term interest in the PCW market. Keith Halliday, marketing manager for the third party maintenance division stated "The Amstrad PCW is an important product line for us. We have been working with the range since it was first launched and we are delighted to be providing service back-up for the new models." The company are at present supporting 20,000 old style PCWs.

Dictaphone's enthusiasm to get organised for the latest range perhaps reflects the feeling that, with the new machines, Amstrad at last have a PCW that can break into the business market.

Using the new PCW 3.5 inch disc drive, compatibility with a PC or Apple Macintosh is now relatively easy. So Dictaphone (and Amstrad for that matter) must be hoping to see PCWs being used as low cost word-processing units in the office.

Dictaphone's maintenance division can be found at Regent Square House, The Parade, Leamington Spa, Warwickshire CV32 4NL, telephone (0926) 429124.

## Amstrad profits halved

After those heady years as the darling of the stock market, Amstrad has come up against the harsh reality of recession with pre-tax profits for 19990/91 more than halved.

After half year results, described by Amstrad chairman Alan Sugar, in his annual report, as "quite good, considering the economic climate", the second half results showed real signs of the recession biting.

Sales figures for the year dropped nearly £50 million to £528.4 million. And well publicised problems with their 2386 range of IBM compatible PCs resulted in the value of stocks being written down more than £20 million.

This resulted in pre-tax profits falling to £20.4 million compared to £43.7 million in the previous year. Shareholders did not lose out, however, with the final dividend being kept the same as last year.

However Mr Sugar warned of problems in the future. In the chairman's report, he predicted "a difficult current financial year from a profits point of view, unless there is a sudden positive change in the market."

## Mac to read PCW discs

**Not two months after the PCW9000 series machines are launched, and the software to allow the discs to be read by other types of computers is starting to appear.**

Already, London-based Software Diffusion have announced a program for the Apple Macintosh which will read the new 3.5 inch PCW discs.

User groups on the PCW discs will appear as folders on the Mac. Files can be transferred to and saved on the Mac hard disc without effort.

Final touches are being put the translation program which will allow LocoScript or ASCII text files to be loaded directly into MacWrite - the popular Mac word processor.

At the moment, we can only report that the new program is likely be called PCWReadA and will cost around £29. Anyone interested should phone Software Diffusion on (081) 903 3044.

## "My text comes from the PCW...."

**The Bible Society has just launched Biblotec Wordkey - the first computerised index of the whole Bible for the PCW.**

The program (only suitable for the 8512 or 9512) allows you to find all the occurrences of a word or combinations of words in the Bible.

It carries out in seconds work that could take a considerable amount of time using the old book-based concordance.

The program is based on the Good News translation of the Bible. Each reference to the chosen word or words is given as a reference in that translation.

The program offers a list of nearly 5,000 key words to choose from. If you can't think of the word that you want you can use wild cards or there is even the

opportunity to plod through a list of all the key words if you are really that keen.

Calling up any key word will give you a list of one of more of the 200,000 Bible references - all stored on one 720k disc. Searches can be carried out on the whole Bible or on selected sections.

You can group all forms of a word (for instance 'sing', 'sang' and 'sung' can all be called up at the same time) and it can even distinguish between different meanings of words. For example 'cross the lake' would not appear in the same list as "the cross of Jesus". All this for only £49.95

The program has already been launched on the PC but the PCW version is surely recognition of the amazing popularity of the computer amongst the clergy and active church members.

NEWS



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Plenty of entertainment with this best selling set of classics - Pacman, Space Invaders, Golf, Bomber, Maze Game, Hungry Snake, Pressup, Ping-Pong, Return To Arg, Game Of Life, Bugs.

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A well-presented and challenging version of the popular board game, played against computer. Features large, clearly presented board.

**PIT YOUR WITS** £5  
Pit your wits against the computer with these popular games - Chess, Othello, Mastermind, Spellit, Rubiks Cube, Stone (Awan), Biorhythm Plotter, TicTacToe and Word Search Puzzle Maker.

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Similar to TV Quiz "Countdown". Make longest word you can from your chosen letters \*VERB - CONSONANT\* - the computer will do the same. The longest word wins! "Amazing graphics" - PCW.

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A multi-choice game with plenty of fast-action graphics and sound, competitive scoring and a wide variety of questions. Fun for all ages. "Guaranteed completely trivial" - 8000 Plus.

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Computer version of popular mechanical sliding squares puzzles. Pictures are divided up on a grid of squares, then mixed up; your task is to slide them around to re-assemble the pictures.

**JUNIOR CHALLENGE** £5  
An entertaining selection: Aerial Antics, Battleships, Burglar Bill, Car Park Blues, Fly Race, Biblical Hangman, Mastermind, Post Haste, Solitaire, Table Tester, Widget Factory.

**AMUSEMENTS AND DIVERSIONS** £5  
Startrek, Lunar Lander, Merchant, Trade, Boggle Baseball, 3D Noughts & Crosses, Chase, Quest, Horse Racing, Civil War, Baccarat, Craps, Hunt The Wumpus, Swamps, Blackjack, Square, Crazy-8, Hangman, American Football, Queen, Spies, Nim, Homonyms, Dots, Dragrace, Pilot, Strobe.

**COLOSSAL CAVE ADVENTURE** £5  
Featuring the famous game which originated on main frame computers, with save and re-load. Plus BESTIARY, "A well-produced, novel adventure" - Bill Brock Adventure's Guide.

**PCW CHALLENGE** £5  
Four cult classics from Nemesis- The Trial of Arnold Blackwood, Arnold Goes To Somewhere Else, The Wise And Fool Of Arnold Blackwood, Brawn Free. "A good challenge lots of hints and tips and good range of responses" - 8000 Plus.

**LOGO LOGIC** £5  
Educational programs for DR-LOGO (supplied with your PCW). Plan your shortest route with AIR-LINER. Play ANAGRAMS and HANGMAN, DRAW with the LOGO turtle, write and print tunes with MUSIC printer and use the DISK LABEL PRINTER.

**FUN WITH GRAPHICS** £5  
PCW-DRAW Simple program to create, save, edit, print pictures. BIO-MORPH Start with a simple figure after a few generations you have a set of complex and unique creatures Plus GRAPHIC ROUTINES including 45 character PCW screen.

### SPECIAL INTEREST

**EXPERT SYSTEM** £5  
Use your computer for decision making, and problem analysis. Build up a knowledge base on any subject then, by answering a series of questions, reach a logical conclusion.

**COMMUNICATIONS TOOLBOX** £5  
Data transfer between computers (local/remote). Access to Viewdata, Prestel, Databases and Bulletin Boards. With Kermit, UKModem7, MEX and various communications utilities.

**HI-NO FILE TRANSFER** £5  
Very straightforward menu-driven program for fast file transfer in and out of your PCW (needs serial interface and null modem cable)

### WORD PROCESSING & DTP

**WORD PROCESSOR** £5  
A powerful WordStar-like editor which offers full screen editing, full block operations, windowing, automatic horizontal scroll (line length up to 255 characters), macro functions, word-wrap, formatting, pagination, find/replace, undelete and more.

**WP & PRINTER TOOLBOX** £5  
Print text (eg Spreadsheet) sideways on your printer, SORT a file into alphabetical order, WORD COUNTER for Locoscript or ASCII, WSCLEAN, CALENDAR GENERATOR, SPELLING CHECKER, SCORING CARD, BANNER Printers, TYPEWRITER emulator, SETPAPER, SETPRINT paper and printer.

**PRINTMASTER (dot matrix)** £5  
Use your PCW and printer to good effect by designing and printing your own customised Letterheads, Stationery, Calendars and Greeting Cards. Also prints signs and banners.

**PRINTMASTER TOOLBOX (2 disk set)** £10  
Features a wide range of over 600 graphics for use with Printmaster plus GALLERY program to view graphics on-screen before printing.

**LETAFONT (dot matrix)** £5  
Change the letters and revitalise your PCW screen with this set of 16 new fonts. Works with most CP/M-based programs. Edit your own set of fonts and even print them out.

### DATABASES & SPREADSHEETS

**KEYBASE II** £5  
UK Shareware database. File Manager, Report Generator, Editor/Browser Screen, Up to 32000 records, Rapid Search, Export to SuperCalc, Locoscript or Protekt, MailMerge, Calculator. "Keybase is well designed simple to use and it works. A good value database." - 8000 Plus.

**FILE INDEX** £5  
Keep mailing list, addressbook, club membership file or catalogue your records, CD's, stamps or books. Use like a Card Index or Filofax. Comes with sort and printer routines. Easy to use.

**DATABASE MANAGER** £5  
A small relational database for storing simple data and producing reports from the data. Uses free format query language with macros and commands plus on-line help. A good introduction to the concept of databases. Disk also contains a useful Inventory Database.

**SPREADSHEET** £5  
The next step from your pocket calculator. Home accounts, mortgage repayments, business and multiple calculation exercises. 60 rows by 26 columns. Menu-driven - enter text, numeric value or calculation (+ - x / with reference to any cell or total). Print facility.

**NUMBER CRUNCHER** £5  
Does for calculations what a WP does for text. Retrieve mathematical expressions (formulae), calculate their results, modify them and store them on disk. Create files of formulae. Menu prompts and on-line help. Up to 15 sig figs., over 100 characters, arithmetic, trig, log and % expressions.

### HOME & BUSINESS

**DESKMASTER** £5  
Comprises a desk-top appointments calendar, calculator, memo-writer, card-file database. Plus Label Printer, Home Accounts, Mortgage Calculator, Weather Forecaster.

**HOME ACCOUNTS** £5  
An excellent home finance program written by a UK author with all the facilities you need to track your bank account and plan your budget.

**HOME VIDEO** £5  
Keep track of your video collection. Offers four Sort options and Forms Management System to print in order of title number, Video number, global alphabetic or unique.

**HOME INVENTORY/HOME INSURANCE** £5  
Record valuables for house contents insurance. Work out how much money you're spending, the value of your stamp collection, the value of your assets. Can be used for simple stock-taking.

### NEW

**CORNIX SIMPLE ACCOUNTS** £5  
Popular commercial program now available as a fully operational shareware version. Full book keeping system without the need to learn complicated accounting.

**BUDGET DISKS** £5 EACH  
5 OR MORE £4 EACH  
VAT INCLUDED

**DESIGN DISKS** £17.95 EACH  
3 OR MORE £15 EACH  
State disk size when ordering



UK & EC countries please add £1.95 P&P per order.  
Non EC countries please add £5.95 per order.

### PROGRAMMING

**NEVADA PASCAL COMPILER** £5  
Offers floating point to 14 digits, trace facility, run-time error messages, linker and assembler, 26 built-in functions, 9 built-in procedures, 15 I/O functions, random, sequential and indexed file I/O functions, histogram activity analyser and access to system calls. **MANUAL EXTRA - £10**

**NEVADA FORTRAN COMPILER** £5  
Adheres closely to the ANSI x 3.9 - 1966 standard with some 1977 extensions. Advance features include THEN, ELSE, COPY, CHAINING and TRACE. With two-pass assembler, random I/O file, 25 general purpose subroutine/function library and run-time error reports. **NO MANUAL**

**THE Z80 PROGRAMMER** £5  
Z80 Assembler creates executable .COM programs from your Assembler files. Z80 Disassembler, Debugger, Library, 8080 Disassembler, Z80 to 8080 Translator, utilities.

**DAZZLESTAR** £5  
The powerful Z80 Disassembler with full set of associated utilities.

**THE C PROGRAMMER** £5  
Not sure which language to go for? Try the Small C Compiler, a practical and useable introduction to C. Disk includes source code. Produces executable .COM programs.

**C TOOLBOX** £5  
Examples of C at work. C source (for a variety of compilers) with .COM programs. As a bonus the programs are quite useful too.

**PROLOG-80** £5  
Fascinating introduction to AI. I/O control, database manipulation, global variables, arrays, blocks, unification etc. With editor.

**THE LISP PROGRAMMER** £5  
Find out more about this fascinating Artificial Intelligence interpreter. Fully documented.

**JRT PASCAL (2 disk set)** £10  
A professional quality Pascal Compiler which comes with extensive documentation and plenty of source code examples.

**GOING FORTH** £5  
A comprehensive FORTH compiler which produces executable programs. With extensive documentation, library files, utilities.

### SAVE MONEY

JOIN OUR PCW CLUB AND GET:-

- BUDGET DISKS @ £4 EACH
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- DESIGN DISKS @ £16 EACH
- 3 OR MORE £14 EACH
- USE OF OUR TECHNICAL SUPPORT SERVICES
- SOFTWARE & HARDWARE AT DISCOUNT PRICES

Membership is £10 per year plus £1.95 P&P

### UTILITIES

**INSTA-MENU** £5  
Locoscript-style menu presentation for CP/M programs. Easy access to user areas, simple cursor-controlled program selection for running, typing, erasing and copying programs. A good "front end".

**IN-CONTROL** £5  
FILE CONTROL features Copy, Delete, Rename, Print, Change User Number, Change Attributes, Log, Sort, Go To and Word Processor-style text file editing. DISK CONTROL features Disk Map, Disk Parameters, Sector Editor, File Editor and Unerase.

**COMPLEAT UTILITIES** £5  
Our classic collection featuring NSW Newsweep one key erase, copy, rename and print plus many other features, SUPERZAP Disk sector editor - edit by track/sector or by filename, DISKITA disk formatter, 178K data format and 5.25" second drive, SCREEN BLANKER plus 12 more.

**DISK ORGANISATION** £5  
CATALOGUE your disks and produce a printed index, archive files and save disk space, MENU SYSTEM, FILE DATING SYSTEM, DISK UTILITY, SQUEEZE / UNSQUEEZE save up to 40% disk space.

### DESIGN DISKS

The following titles feature top quality commercial programs by a UK author who provides technical support to customers. Instructions are supplied on disk.

**FORM BOX COMPENDIUM** £17.95  
Filled with Locoscript compatible forms. Invoice, Receipt, Order, Delivery, Petty Cash, Personal Organiser, Money, Household and more.

**MONEY MASTER** £17.95  
Easy to use small business and personal accounting. Received from / paid to, item description, usage and account codes, amount, date and running balances. Totalling and budget analyser by payer, usage code or other. Search, select and report functions.

**PRINTER CALCULATOR** £17.95  
Prints calculations on the PCW printer with totaling and item names. Special functions for till and sales receipts.

**MEGACALC SPREADSHEET** £17.95  
Large capacity, 14 digit accuracy, full screen editing. 80 functions including scientific, maths, trig, conditional, complex expressions.

**TEXT EDITOR** £17.95  
A CP/M compatible mini Word processor. Ideal for Source Code editing and quick text editing.

**TEXT CALC** £17.95  
Calculates maths expressions in document and other files, replacing them by the results.

**TEXTBASE** £17.95  
Turns existing files into database without the need for any re-typing.

**HYPERTEXT PCW** £17.95  
Consider it as a 3-dimensional text processor where pages are linked by ideas and topics to make an interactive network. Suitable for creating reference systems, training aids etc.

**EXPERT SYSTEM PCW** £17.95  
Interactively derives conclusions from knowledge in the form of rules and facts using fuzzy logic, while optionally explaining its deductions in English.

**SECURITY FILE ENCRYPTION** £17.95  
Much more than just password protection - hacker proof coding and decoding of all files and programs using key phrases.

**SUPASTAT STATISTICS** £17.95  
All standard statistics functions plus Correlation, Chi-Squared, ANOVA, Mann-Whitney, Wilcoxon, Kruskal-Wallis, Kendall, Page & Friedman, Jonkheere, F&T Test, Cross Tabulation, Scatterplots and data editing.

**CPM+ SCANNER** £17.95  
Displays machine code contents of the computer memory in approximately 140 screen pages. Essential for peek and poke users.

**UTILITIES COMPENDIUM** £17.95  
Packed with home and office programs including File Sorter, Word Counter, Mail List Labeller, Universal Calendar, Columns Formatter, Printer Control, Timer, Screen Commands etc.

### COMPILERS

**MIX C COMPILER** £33.95  
Professional C compiler produces stand-alone, executable .COM files from source code. Closely adheres to Kernighan-Ritchie standard with full floating point arithmetic. Very good tutorial with examples - recommended for newcomers.

**MIX C EDITOR** WordStar compatible £19.95

**MIX C TUTORIAL EXAMPLES** on disk £5.95

**MIX C GRAPHICS LIBRARY & ASM UTILITIES** £9.95

**THE MIX C 'WORKS'** - All the above £49.95

**NEVADA COBOL COMPILER** £33.95  
Based on the ANSI - 1974 Standard for this industry - standard data processing language. Features runtime error messages, random access and sequential files and integration of assembly language using the DR MAC assembler.

**TEN MAXELL/PANASONIC 3" DISKS** £17.95

**TEN SOLID PLASTIC DISK CASES** £3.95

**INTERFACES** Serial & Parallel ports £59.95

**PRINTER CABLE** Centronics to 25-way D £12.95

**NULL-MODEM CABLE** for file transfer £12.95



## Shareware trial for Simple Accounts II

Cornix Software, authors of the Simple Accounts II package, have launched a daring new experiment in marketing by offering a shareware version of their program through Advantage, the public domain and shareware specialists.

Shareware, popular with other makes of computers, has never really taken off with the PCW. It is basically a 'bite it and see' philosophy applied to computer software.

With Cornix, for instance, they are offering a full, working version of the program, for a nominal fee, with a couple of restrictions. For instance you can only input 50 entries, you cannot go beyond two accounting periods and you cannot use all the end of year accounting features.

It even has all the documentation on disc with a utility to allow you to browse through the instructions.

Even with these restrictions there is certainly enough in the program to allow

new users to evaluate the program fully and decide if it suits their needs.

If they like the package they can then buy an unrestricted version of the program for around £93 including VAT. This also allows them access to full technical support, including an out-of-office-hours telephone hot-line.

Cornix's Merrick Allsopp said "Often people will buy a program and discover too late that it doesn't do what they want it to do. In software there are horses for courses and if our program doesn't suit a particular user we would prefer they found out before they spent the money.

"But we also feel that, with Simple Accounts II, we have nothing to hide. This would seem to be the ideal way to present our product to potential customers."

Simple Accounts II has a long history in the PCW software market. Its predecessor was one of the first accounts programs available (the program was

originally written for the Amstrad CPC). It was revamped and improved in 1988 to the present version.

Aimed very much at the small business Simple Accounts II aims to simplify the accounting process as much as possible, keeping clear of accountants' jargon.

But hidden behind this simplified front end, you can gain access to a full set of accounts, produced in a form to make your accountant's life easy.

This move may mark an important step forward in opening up the shareware market to PCW software.

Jeff Green of Advantage said, "There are very few shareware programs available to PCW owners. We always feel there must be many programmers out there with good programs that could be successfully marketed through shareware."

For details contact Advantage, 56 Bath Road, Cheltenham GL53 7HJ, telephone (0242) 224340.

## A label for all seasons

With the old three inch discs becoming more and more scarce, the need to make use of old discs becomes even more important. So Gnome Designs are providing the ultimate accessory for this - the erasable label.

To tell you the truth, the label is not actually erasable. In fact it is the writing on the label that is erasable - a far more sensible arrangement. A pack, containing 100 labels, comes complete with two pens (red and black) and a bottle of erasing fluid. Then when you change the contents of the disc, you can erase the writing and start again - "to end to scruffy, altered, unreadable labels" as Gnome Designs insist on saying. Writing, it is claimed, cannot be erased by a finger, rubber or even fading with time. Several pack types are available, in black/white or colour coded. There are labels for 3 inch and 3.5 inch discs.

Prices start at £9.95. For details contact Gnome Designs, Pebble Dene, Syke Lane, Leeds LS14 3BH, telephone (0937) 58171.

## Election fever

Election fever has even hit the relatively virus-free PCW. Now you don't need to wait for Election Special. You can make your own forecasts using Election 1992 - a program that predicts election results using percentages obtained on opinion polls or on the early results on the night of the polling.

Using Mallard BASIC's Jetsam database functions the program allows you to check up on how a percentage swing will affect the result in any of 635 mainland seats. Northern Ireland seats are missed out (perhaps on the basis that no-one can predict what will happen there?).

Even by waiting until an autumn election had been ruled out (calling the program Election 1991 or 1992 would have taken away some of the impact), the author, Pete Birks, has still allowed the maximum amount of time to predict and re-predict the result. The long winter nights will surely fly by.

At a mere £4.95 it will surely be the ideal investment for any PCW owning Member of Parliament. For details contact Pete Birks, 181 Friern Road, East Dulwich, London SE22 0DB, tel:081 693 4830.

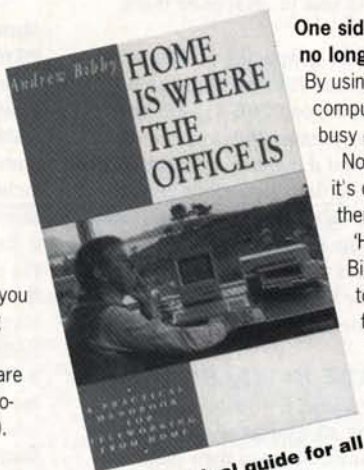
## Oops!

So how many keen-eyed readers spotted the two deliberate mistakes in last month's issue? Last month was, as everyone knows, 'Give a Wrong Phone Number Month' and we did our bit by misleading you at least twice.

In the news pages Sword Computers' phone number should have read (0204) 496274 and in the keyboard article CPC's number was really (0772) 555034.

Our apologies to anyone who actually phoned these numbers but, more pertinently, we must apologise to the poor souls who got several thousand perfectly inexplicable phone calls.

## Home is where you hang your PCW



One side effect of the computer revolution is that you no longer really need to work in an office.

By using modern telecommunications technology, any computer user can work as effectively at home as in a busy office in the centre of a vast city.

Now, anyone interested in 'teleworking', (that's what it's called by the way), can look to a new book to help them set up.

'Home is where the office is' is written by Andrew Bibby, a freelance journalist who regularly contributes to *The Independent* and has even been known to write for a certain best-selling computer magazine, which modestly prevents us from naming.

He should know a thing or two about the subject, having teleworked for the last four years.

It is a practical handbook, offering an overview of the possibilities and a practical how-to guide to setting up your office at home. It also spells out the advantages and disadvantages of the lifestyle.

'Home is Where the Office is' is published by Hodder & Stoughton at £6.99. Quote ISBN number 0-340-55951-9 when ordering through bookshops.

## The colourful world of the PCW

A few years ago the most colourful thing about a PCW was definitely the old 8000 series green screen. Now, some new fangled technology from the PCW-World User Group will actually allow you to print out boring old LocoScript 2 files in full colour.

Of course you also need an external printer that can handle multi-colour printing. For instance, the Citizen Swift 24 with the multi-colour printer ribbon is ideal.

Superscript - for that is its name - also allows you to use a choice of fonts anywhere in the document and gives a variety of border effects. If your printer supports it, you can use outline or shadow printing in any font size or colour, enlarged print sizes and reverse print. It will even give you some additional characters that are not available with other printer drivers.

Or as the publicity material puts it "you can access all those 'goodies' LocoScript 2 can't reach." And this will only cost you £19.95. Contact PCW-World, Cotswold House, Cradley Heath, West Midlands B64 7NF, telephone (0284) 66269.

Additional characters  
with printer drivers, for

\* Other facilities to enable  
text to be achieved when spec  
have been used to produce the  
available by SuperScript.

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All this from within Loco 2.



## Vive le PCW

Anyone who has grappled with BASIC, C, Pascal and Assembler, would surely find another language like French simplicity itself.

But, just to make it even easier, there is a new program available on the PCW to help them do just that.

Called Lingo-French (sounds more like Latin to us), the program sets out to teach you French words (presumably Lingo II will teach you the expressive French gestures).

Not only does it teach you the words, it then goes on to test your knowledge using a variety of approaches, including anagrams and games of Hangman.

The words are grouped in easily learnable pages (there are 180 pages in the program) and there is a dictionary to check up on the meaning of any of the listed words.

It certainly sounds like a fun way to learn French. For details, contact Mike Greenwood, College Connection, Newtown SY16 1BE, telephone (0686) 625039.

## Clip art galore

If a picture is worth a thousand words then the latest Graphics Galore DTP clip art catalogues are worth the equivalent of War and Peace.

Clip art is drawings or images, on all kinds of subjects, available on disc for use in other graphics programs. Three new catalogues, packed with .CUT files suitable for use with the MicroDesign 2 or Stop Press DTP packages, are now available at £4 each including post and packaging.

The catalogues, numbered four to six (numbers one to three have already been issued) each contain 36 libraries – basically a disc packed with 36 different images. These libraries can then be bought for £3 each.

There is a wide variety of images, organised in alphabetical order of the file name. So, you could find you have a library with females and fish on the same disc!

However, it is pretty certain that you will find one or more graphics to suit your needs from a choice of more than 8,000 pieces of clip art. Book seven is planned soon – containing mainly larger pieces.

So, if you are looking for just the right piece of art work contact Goldmark Systems, 51 Comet Road, Hatfield AL10 0SY, telephone (0707) 271529.



Just some idea of how varied the clip art on the Graphics Galore DTP catalogue can be

## Waiting for WYSIWYG

Anyone waiting for their copy of WYSIWYG, Logi's utility for transferring files between PCWs and PCs can perhaps blame us for any delay. Now don't get us wrong - we had your best interests at heart when we reviewed the product! In our survey of the file transfer program we made a slight criticism, saying that if you made a mistake during a multi-file transfer there was no way of stopping the process. Logi's took this to heart and have rushed off to put the problem right, which has resulted in a slight delay to anyone anxiously awaiting a copy of this useful program. The company assure us that the new, improved version is now available and the copies should be winging their way to their new owners already. Anyone else interested in the program should contact Logi's UK Ltd, 13 Denington Road, Wellingborough NN8 2RL, telephone (0223) 423456.



## ESSEX APPEAL

This month's main event for the South Essex PCW Club is the forthcoming appearance by Merrick Allsopp of Cornix Software. Billed by the club secretary as "the first ever speaker from a software company to actually come in person to our club", Merrick will not only be discussing his company's products, but also presiding over a "Sellathon" for charity of Cornix software. All proceeds will be going to the Great Ormond Street Hospital Appeal. The last time Cornix pulled a stunt like this (at the M25 Club last January), the event raised over £400 for charity. This time around the club organisers are hoping for "maximum attendance" so it would be a shame to disappoint them.

It'll all be happening on Thursday November 7th. The club can be contacted on 0268 415255 for further details. With a successful AGM and a number of LocoMail and LocoFile demonstrations behind them, we've heard only good news from the club whose main problem appears to be finding enough time at their meetings to show off all their new software.

## TRADE IN WALES

North Wales Computer Club are inviting all interested members of the public along to their open day and exhibition on Saturday November 9th. The doors will be open from 10am until 5pm at their usual venue - the YMCA, Queens Drive, Colwyn Bay - where they'll be demonstrating a variety of hardware and software. Local traders will be displaying their newest acquisitions and there will even be a 'bring and buy' stall run by members, where anyone can drop by to pick up (or get rid of) computer related items. Among the very latest technology on show will be the new Commodore CDTV, the CD-ROM based multimedia system that looks set to revolutionise home entertainment. Well, that's what it says here.

Due to increasing interest in the club, ordinary meetings are now held twice a week at the YMCA. Tuesday evenings are the business and general nights, while leisure and games get a look in on Fridays. Both gatherings take place from 7 till 10pm, and you can ring the secretary, Brian Hall, on 0492

514004, or the President, David Parry, on 0492 544185 if you have any further questions.

## OLD FAVOURITES

No strangers to this column are the M25 Club of Ealing, who promise to devote the evening of November 18th to demystifying the fine art of CP/M programming and providing expert answers to all your LocoScript queries. Both beginners and experienced users will be welcome from 7.30pm at the Hanwell Community Centre, Cuckoo Avenue, London W7 - further information is available from secretary Tony Brown (081 841 3666, after 7pm) or chairman Ken Ritchie (0992 583744, after 8pm).

Meanwhile up north, the Teeside PCW Users' Group are still going strong, boasting a record attendance of 30 at their recent AGM. Their ambitious range of plans for the next 12 months include a demonstration of MicroDesign 2, a talk on databases, a display of a selection of printers, the production of 'An Idiot's Guide to the PCW', and the (potentially harrowing) prospect of writing BASIC programs by committee. If you'd like to get involved in any of the above, or would just like to meet other PCW users in the area, then Gladys Baker and her 24-hour answering machine will be waiting for your call on 0642 580018.

And last but not least this month is the Hereford Computer Club for both PC and PCW users. Their PCW group meets on the first Wednesday of each month, and continues to gather new members mainly (if their latest newsletter is to be believed) via the "addictive" properties of MicroDesign 2. The recently introduced £10 annual membership fee buys you a regular newsletter and access to a wide range of club facilities - contact David Rose on 0432 267123 if you'd like to know more.

Don't forget that Club News exists to promote your club or user group, and it's all free! So if you've got a worthwhile event or organisation that you'd like to publicise, pop the details in the post to us at the usual editorial address. But hurry! Due to our strict press deadlines, news for December's issue must reach us by the first week in November.



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- (3) Recover your unit at the **FIXED AGREED** price, including a full system test before despatch.

#### Kit 1 - PCW 9512 £35.95

- 1-1 Dust cover set (3pcs), monitor, keyboard & printer
- 1-2 Maxell CF2-D DS/DD Disk - Box of 10
- 1-3 Carbon M/S Ribbon x 5 off

#### Kit 2 - PCW 9512 £64.95

- 2-1. All items as in Kit 1
- 2-2. 3" Drive cleaning kit
- 2-3. Maxifit (Margin Maker)
- 2-4. 2 off-AMS, storage box (10 cap)

#### Kit 3 - PCW 8512 £21.95

- 3-1. Dust Cover set (3 pcs) monitor, keyboard & printer
- 3-2. Amsoft CF2 Disks x 10
- 3-3. Carbon and Fabric ribbons 1 each

#### Kit 4 - PCW 8512 £36.95

- 4-1. All items as in Kit 3
  - 4-2. 3" Drive Cleaning Kit
  - 4-3. Margin Maker MM3i
  - 4-4. 2 off-AMS storage box (10 cap)
- (more special offers - see our Inside Front Cover)

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 Large text screen (white)  
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# The New PcWs

*Twelve months of speculation are over: Amstrad have finally unveiled their new PcW range. This month, we take a look at the PcW9256 and PcW9512+, and answer some of the many questions which you have been sending in. From cosmetics to compatibility, we bring you all the information you'll need to know about the new machines! So, let's get cracking!*

## Put the boot in

One unusual feature of the new machines is that it appears you can only start up using a disc that has been formatted on that particular kind of machine. It appears that slight differences in the boot track mean that a 9256 disc will not load up CP/M on a 9512 and vice versa.

## How much?

The prices of the new PcWs (including VAT) are as follows:

PcW9256 - £410

PcW9512+ (with daisywheel printer) - £527

PcW9512+ (with Canon BJ10-e) - £645.

At the time of going to press, the machines were not yet in the high street shops. However, it is hoped that by mid-November, you will have absolutely no trouble getting your hands on one in Dixons, Currys, Comet and other leading electrical retailers.

## COSMETICS

**Question:** What do the new computers look like from the outside?

**Answer:** There are no big surprises here. The 9512 Plus uses the old 9512 casing. The 9256 is smaller than the 9512 Plus, but has a similar shape.

The size of the 9256 was what seemed to attract most interest at the Business Computing Show, where the two new machines were officially launched. The overall dimensions are: 31cms wide, by 35.5 cms tall, and 29 cms deep. This compares to the 9512 dimensions of 34x41x34, and 8000 series dimensions of 34x41x31, and represents a substantial saving on space.

The monitor unit, an off-white colour, contains the guts of the machine. The monitor is not detachable.

The 9256 screen is a definite improvement on the 8000 series. It is now 'paper white' (white characters, that is, on a black background). It is physically smaller than the older screens, but still displays the same number of characters - 90x32.

This has two opposing effects. On the down side, people who suffer from eye-strain and other visibility problems are not going to be helped. On the plus side the smaller screen will mean that graphics will be more compact, and judging by our first reactions, will look much better.

Below the screen, and on the right, is the 9256's disc drive. As we know, it is a 3.5 inch drive - a Citizen UODC-45A, holding 720k of data. Nobody at Amstrad knows why it is on the right rather than the left.

The light (for those worried about aesthetics) is green. Below it is the input socket from the keyboard - more prominent than that of the 8000 series, but considerably more accessible than on the 9512.

To the left of the existing drive is the logo - 'PcW', with the inexplicable lower case 'c' - and above that the brightness and contrast adjusters.

Below it is the on/off switch, part of a bar of plastic which caused much speculation at one point (was it a hard disc or the covering for some mysterious new third disc drive?).



The PcW9256 has a sleek, streamlined appearance, and would look at home in any office

**Question:** What ports are there on the back for connecting printers and other add-ons?

**Answer:** Officially there is only one connector at the back of the new computer - the printer port. However, there is also a piece of removable casing, under which lurks an edge connector - familiar from the back of existing PCs. It has had to be covered up to comply with new regulations on radio interference but anybody with a screwdriver should be able to remove the cover without problems.

There are problems, however, with its siting on the 9256. Not only is it positioned at the bottom of the unit, it is also recessed. There seems to be no good reason for this. New add-ons will have to be designed to cope with this new configuration but at least it looks as though such products will now be able to sit on your desktop, rather than float

perilously in mid-air. The computer's mains lead is now detachable. This will come as a relief to those who move their computer round a lot - no more tripping over the wire. The connector is one of those of the three pin 'kettle' models.

**Question:** Does the PcW9256 have a different keyboard?

**Answer:** Both the keyboard and the printer are the same as previous incarnations of the 8000 series, but with redesigned casings. Curves are the order of the day, the colour tying in with the off-white of the monitor case. This means that the far-from-convenient arrangement of the keyboard remains (although it has been prettified by making some of the keys grey and some white, as on the 9512 keyboard). The print quality of the old dot matrix also remains the same.



**Question:** The 9256 seems to be quite different in terms of design. Is the same true of the 9512 Plus?

**Answer:** No. Those familiar with the looks of the 9512 - and that should be all 8000 Plus readers - will find little new about the 9512 Plus. Cosmetically, the machine is virtually identical to its predecessor. The edge connector is again covered up, but the old serial port

remains intact. The machine is available with a choice of printer, however, offering either the standard daisywheel or the Canon BJ10-e. If you take the option of the bubble-jet printer, you will find that that, too, has been given a new, off-white casing.

The keyboard remains the same, and the dot matrix printer comes with the sheet feeder that has recently become standard with the 9512.

**Question:** I am used to putting my 8000 series printer on top of the monitor. How can I do this with the new, streamlined design?

**Answer:** The new PcW is designed to be a compact unit and has special clips and slots, specifically designed to allow the printer to be attached to the top of the monitor. Much less precarious than the existing arrangement.

## MECHANICS

**Question:** Are there any internal changes from existing PCWs?

**Answer:** The physical internal changes are, on paper, minimal. Although the drives now use 3.5inch discs rather than the old 3 inch ones, the machines remain effectively the same as the old PCWs. Both allow space for the

fitting of a second drive. However in the 9256 in particular, the space for the second drive is quite tight and seems only just big enough to take the drive - and little else besides.

The smaller size of the 9256 casing means that such internal spaces are at a premium. It seems hard to imagine bulky internal upgrades, such as the installation

of Sprinter, and although fitting extra memory chips will be possible, the sockets for such an expansion are pretty well hidden.

The good news is that Rampacs and external Sprinters will be available for the machine in the near future - see below for details - and so internal upgrades may become unnecessary.

## BUNDLED SOFTWARE

**Question:** Is LocoScript still supplied as standard?

**Answer:** Yes. LocoScript will accompany the new PcWs and play just as important a part in its everyday life.

The main surprise is that it is LocoScript 1 that accompanies the 9256, albeit in the upgraded version 1.5. The reasons for this bundling of the old with the new is presumably a financial one on Amstrad's part.

Locomotive do not seem too unhappy about this - LocoScript 2 is already available for the 9256, and given that LocoScript 2 allows the compatibility of LocoMail, -Spell and -File, as well as supporting external printers, it is a fair assumption that many people will upgrade to that version sooner rather than later. The version they will then receive is LocoScript 2.32 - a new upgrade.

LocoScript 2, though, will be bundled with the 9512 Plus from the outset. This, too, will be a new version (2.33 - these new upgrades will be released at a later date for older PCWs), and will include Spell and Mail facilities, as on the present 9512.

A new LocoFont package - LocoFont BJ - has been produced to go with the 9512 Plus and bubble-jet printer. This too will be made available to other users at a later date.

**Question:** Which operating system does the machines use?

**Answer:** Despite the occasional speculation in the industry that the new machines would use MS-DOS instead of CP/M, there has never been serious doubt that CP/M would continue to hold sway at the court of the PCW.

However it uses CP/M Plus (or 3) v1.11, an upgrade on present versions.

All the old utilities are still present - PIP, DIR, SHOW, TYPE, DISK1T, SID - as well as the two programming languages BASIC (still the Mallard interpreter, in a new version - 1.47) and Digital Research's LOGO. BASIC programs from the old PCW Mallard should run all right, although some pokes may not work on the new machines.

The two old assemblers MAC and RMAC are also bundled, along with their associated linking and library files. A couple of new files have appeared, neither of them a PCW - PC transfer system, unfortunately.

One of the big considerations is how much you can get on a disc - 720k is a lot of data and the whole of the PCW's CP/M now lives on one disc, with 124k to spare. 9512 owners will not bat an eyelid at this - they are used to it. They are only likely to raise half an eyebrow at the PROFILE.SUB which has appeared on the disc.

When you boot-up CP/M, this file automatically sets the machine's search paths, so that commands on the M: drive can be used as if they were on the A: drive. You can also treat .SUB files as if they were .COM files.

In addition, the PROFILE.SUB also causes a batch of files to be copied from the A: drive to the M: drive. Again, this happens on the 9512. But here it causes a problem. Once they are all copied across, only 29k of space remains on drive M:.

As a consequence, if you do not wipe your M: drive before starting, you can expect to have to make 24 disc changes when you are copying a disc using DISK1T. Clearing the M: drive brings this number down to 10.

The eagle eyed among you will have noticed that the boot-up filetype has been changed from .EMS to .EMT. This should have little effect on 'legal' CP/M programs (those which obey all the rules - see below). All this means is that the computer has been told to look for an .EMT file when you turn it on rather than a .EMS file. It seems to have been implemented purely as a precaution - so that people do not try to boot the machines with an old .EMS file.

Inside the file it seems that the only details which have been changed are some of the BIOS calls - see the software section below if you are interested in how this affects existing programs.

more popular, should also prove no problem. No more problem than they have always been, that is.

The situation with the 9256 is still developing. SCA Systems are among the first to respond to the new challenge, announcing a new series of add-ons which including one with a Centronics Interface, another with a Serial Interface, as well as a short adaptor cable - a

## Manuals and further information

**Question:** What documentation is there for the new machines?

**Answer:** On the evidence of what we have seen, the documentation is not very comprehensive. The 9256 manual is skimpy - it deals only with LocoScript 1, not CP/M, and although what it does say is an improvement on the original LocoScript 1 manual, it is still far from ideal.

At least there is help at hand for 9512 Plus owners. They will find two new LocoScript 2 books aimed directly at them - LocoScript 2 on the Amstrad PcW9512 Plus, and a companion volume on LocoMail. They proclaim themselves 'The Definitive Guides' and are updates on Locomotive's excellent LocoScript 2 manuals. They are available from Locomotive. Finally, the Mallard BASIC manual is also available from Locomotive.

We confidently expect that other new books will appear for these machines and, of course, all the older PCW books are still relevant.

## HARDWARE

**Question:** What hardware will be available for the new computer? And how does the change in expansion port affect the use of add-ons?

**Answer:** Most existing PCW hardware add-ons should be capable of supporting the new machines. Keyboard add-ons, for instance, will need no alteration. This means that the Teqnique

keyboard and the new KeyMouse from Creative Technology are both immediately available for the machine.

The major problem for other hardware will be the 9256's expansion port. The 9512 Plus should be able to support the all existing add-ons, including Sprinter, Rampacs hard discs and extra external drives. External printers, which are becoming more and



'Dongle' - to allow existing products to fit on to the new machine.

They will also be launching the PRO9256, a 256k Rampac combined with a Centronics Interface. As these two features are the main differences between the two new machines, SCA claim this attachment, will practically upgrade the 9256 to a 9512 Plus. All

these products should be available in the near future.

Cirtech, manufacturers of Sprinter and the new Gem hard disc, say that their products will be available for the new machines, although external Sprinters for the 9256 will have to be re-shaped. They also have other plans in the pipeline.

ProSCAN from Creative Technology, too, has been given the green light - all that will be required will be a short adaptor cable.

One piece of hardware/software which will not be available for the new machines is LocoLink. With the new 3.5 inch drives it has become (effectively) obsolete in any case.

## OTHER SOFTWARE

**Question:** What software will be available for the new computer?

**Answer:** As we've already seen, all Locomotive programs are already available, with minor improvements, for the new computers.

As for other existing programs, the official line is that, as long as they abide by the all the 'CP/M rules', there should be no problems.

In general, this means that programs which you start up from the A> prompt are OK. Others may need looking at.

One program that definitely falls into the latter category is Flipper, along with its stablemate, Foreword. New versions of both will be available for the new machines.

The other main category of programs, which may have trouble adjusting, are games. Although the majority should run without too much problem, some of those that use detailed graphics may crash. Make sure that you check compatibility with the manufacturers before you purchase. BASIC games programs should be fine.

There should be few problems with the more serious CP/M applications.

MicroDesign 2, Mini Office, Cracker and Protext, all are reported - or tested - to work on the new machine. The only questions may be raised by the arrival of the bubble-jet printer. On the other hand, some companies - Creative Technology in particular - are positively welcoming the new printer.

We've just received confirmation of a software release specifically for the new PcWs - the 'PcW Works'. A joint venture between SCA Systems and Logi'stick Software, this will include a Database, Spreadsheet, Word Processor and MS-DOS to CP/M file transfer. It also supports Rampacs and hard discs. Looks like it could become a standard product for the new range.

The biggest issue concerning new software, though, is the size of the discs. Leaving aside the fact that the old 3 inch discs are becoming even more scarce - Amsoft have now officially stopped supplying such discs - there is the problem of distributing program discs to a divided market. And remember, it is not just the physical size at issue - the old 173k against 720k problem still exists. Programs could be developed that just won't fit on the old discs.

A similar situation has be-devilled the PC world for a long time and there is still no general consensus on how it should be approached. Some products are distributed with both 3.5 and 5.25 inch discs in one package. Others are distributed separately.

It seems likely that in time new releases for the PCW will not bother with 3 inch discs. In the meantime, manufacturers have the choice of dual format boxes (with both 3 and 3.5 inch discs) and single format boxes (in which you buy the box containing the format that suits you).

Most convenient for the purchaser would be the dual format package - no difficult questions, no misunderstandings, no wrong labels.

However, the manufacturers are naturally reluctant to release potential programs for two computers in one box, and for one sale. As far as manufacturers are concerned, raw material disc prices are negligible, but giving two versions of the program may seem dangerous.

The most sensible approach to buying new software must be to specify, when you buy, what sort of disc you need and the machine you need it for.

## SOFTWARE - TRANSFER AND COMPATIBILITY WITH OTHER MACHINES

**Question:** What if I want to use the same programs that I have bought on 3 inch disc on my new PcW?

**Answer:** Good question. You will certainly not want to buy a new copy of the program. The flip side of this is the software company's view - that if you use a second computer, you should pay for the privilege. If you buy a new PcW, the assumption is always there that you have still got your old one as well.

In practice, it seems unlikely that software houses will be quite so Draconian. Some suggestions have been raised within the industry: that users of the new PcW should get a new program disc if they send back the old 3 inch master disc (a symbolic rather than practical gesture), or that registered owners should get a special cheap rate on new discs in the same way that they would get an upgrade of a program.

It must be emphasised that policies have not yet crystallised and that new ideas may emerge. But at the moment, a long and vociferous debate seems set to begin and it may be some time before we see a standard policy emerging.

**Question:** What if I want to transfer data files between my 3 inch discs and the new 3.5 inch format?

**Answer:** Obviously, the easiest way of achieving this is to fit a 3.5 inch drive to your existing PCW. Then you can simply remove a disc from one machine and use it in another.

You could also connect two machines via a serial cable and use the MAIL232.COM utility to effect the transfer (for those who are interested, MAIL232 still contains the Game of Life!). Or you could PIP.COM or even buy a copy of one of the simple comms program although you will need to buy a version for each machine.

Whichever of these previous options you choose, though, bear the comments in mind if you are copying programs.

**Question:** Are data files compatible with MS-DOS machines?

**Answer:** The 3.5 drive has made communication with other computers much easier - and at least with the new PcW, the disc size will be the same.

However, you cannot simply take the 3.5 inch PcW disc, put it into a PC and expect that machine to read it. Transfer is a matter of shifting data from one format (CP/M) on one disc, to another disc of a different format (MS-DOS), using the same drive - and the appropriate 'customising' software.

As far as we are aware, there is only one program that will control this process from the PcW - Moonstone's 'Toolkit', which is already available in 3.5 PcW format. This will copy on to MS-DOS PC format discs. Other programs have a greater range of formats to which they can copy, but they do have to be initialised from the destination computer rather than from the PcW. Remember that 3.5 inch discs are now used on the Apple Macintoshes, Ataris, Amigas, Archimedes and many other machines as well. A particularly impressive utility is the shareware product 22DISK. Phone ShareWare Elite on (0326) 564164 for a copy. But beware. There's a lot of file uncompressing to be done, simply because it allows such a wide range of alternative formats to be accessed. T-READ from Timatic systems is another means of doing the same thing.

## Summary

The new PcWs, impressive though they are, break no significant new ground - they are essentially the same pieces of equipment as the existing models. Indeed, Amstrad never intended to release a mould-breaking new home computer, but rather to build upon the highly successful original formula of the existing PCWs, bringing the new models into line with current technology. The cosmetic changes indicate Amstrad's aim to break into the entry level business market, and the addition of the widely-used 3.5 inch drive, coupled with the aggressive pricing of the machine, could give the new PcWs just the edge they need to attract widespread commercial interest.



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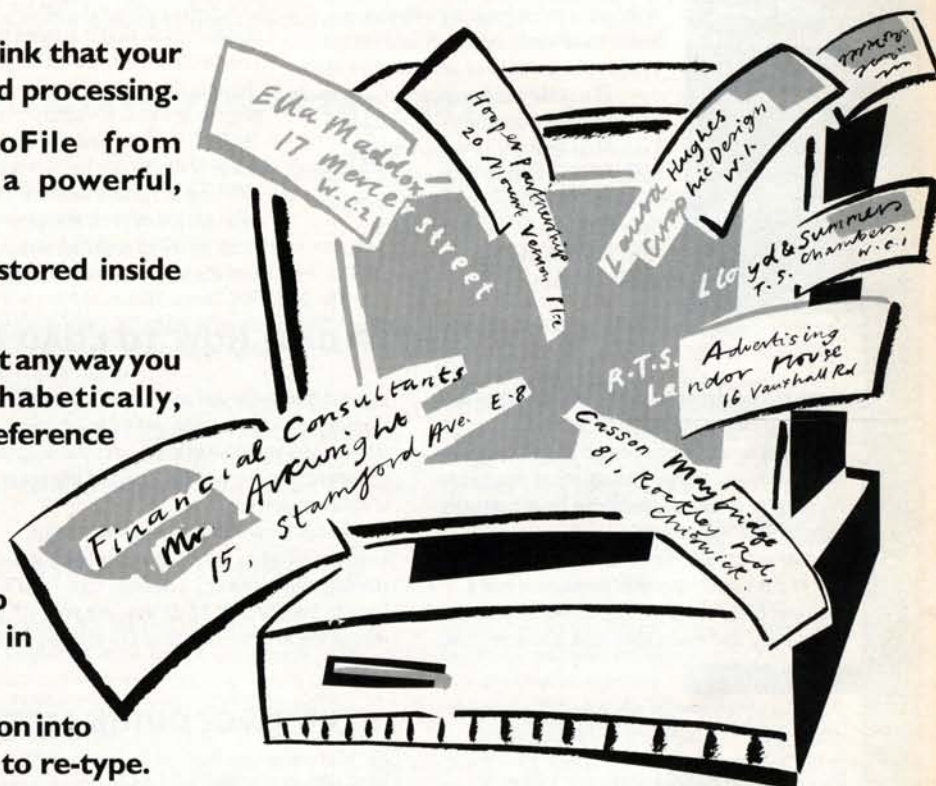
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# Beginning Basic

*We begin a new series looking at the most popular programming package for the PCW. You too can tell your computer what to do!*

## More!

When you have become accustomed to the way BASIC works, why not try your hand at some longer programs? Turn to our Listings section which begins on page 54 of this issue for some examples!

## What is BASIC?

BASIC is probably the best way that you have of getting to the heart of your computer. It is a programming language.

The concept of 'Programming' usually conjours up images of boffins with odd-shaped heads and bleary, VDU-damaged eyes, or of small children who seem to understand computers better than teddy bears. Whatever the image, it is usually of an exclusive club.

The reality is not like that. Anybody can program a computer. If you use LocoMail or Protext's Mail merge facility, if you have ever used a database or spreadsheet program to store your own data, if you've ever written a 'PROFILE.SUB' file, then you've programmed your computer.

But, you'll say, that is different. That's just customising a program that somebody else has written. But the point is that you are actually commanding the machine. Using any programming language is, in effect, just a matter of using a program which somebody else has written.

OK, you'll say, but isn't it dangerous to fiddle around telling the computer what to do? The answer is a definite no. A programming language is only as good as its safety nets, and BASIC's safety nets are very good indeed. It will not let you harm any existing programs or software, far less can you harm your machine. There'll be none of those dreaded 'crashes' if you use BASIC. And a final myth to dispel -

programs for the computer do not have to be complicated. They can be as simple as asking "What does 2+2 equal?"

Or they can be as complicated as a flight simulator. But for the moment we will be sticking to simple programs, and for this article, we will investigate the most basic aspects of BASIC: how to find your way round a program, and how to produce some text on the screen.

There are many versions of BASIC. The one most widely used for the PCW is the one that comes bundled with it - Mallard BASIC. It is written by Locomotive software, the same people who brought you LocoScript, so you know you can trust it! Now let's have a look at how to get started

## STEP ONE: HOW TO LOAD BASIC

There are two types of programming language. There are compilers and interpreters.

Compilers produce code that the computer can understand in its own numerical language - the programs they produce can be run directly from CP/M's 'A>' prompt.

Mallard BASIC, however, is an interpreter. Just like the little man with earphones and a furrowed brow at the U.N., it listens to what you have to say and then converts it into something

that the computer will understand. But the translation is ephemeral - it has to be re-translated each time that you use the program, or indeed, each time that a part of the program is re-encountered.

Which means that before each BASIC session - whether you're writing a program, or running one written by someone else - you'll have to load BASIC. To do this, put your CP/M disc in the A: drive (CP/M is the reverse of the

LocoScript disc if you have an 8000 series machine, and the 'other' disc which came with your PCW for the 9000s), and then re-booting it by pressing [SHIFT][EXTRA][EXIT] at the same time, or simply by switching the machine on.

When the PCW settles down, you should see what is known as the 'A>' prompt.

At this prompt, type in the word BASIC (not necessarily in capitals) and then press [RETURN], and BASIC will be all ready to use.

## STEP TWO: QUICK MATHS

So, having got BASIC installed, it's down to business. Mallard BASIC has two modes: the direct and the program modes.

Direct mode means that you give the computer an instruction, and it obeys it immediately. Ask it, for instance, to PRINT 2+2, and press [RETURN], and it will come straight back with the answer "4".

Or ask it to multiply 25 by 16 by typing PRINT 25\*16 [RETURN]. The answer will come

back just as quickly as did 2+2.

And it can go further: type PRINT 5^5 [RETURN] (the '^' character is [EXTRA][U], and may look different on your screen, but still means 'to the power of'), and you will get the fifth square of 5. Very quickly.

Or ask for the square root of 27594.148 (PRINT SQR(27594.148) [RETURN] - the brackets are essential) and you will be told the answer.

Your PCW can cope with sines, co-sines, tangents and logs as well - simply bracket the angle, in radians, after the mathematical abbreviation: PRINT SIN(3.8964) [RETURN]. If you fancy yourself as a mathematician, try some combinations of these.

Note that multiplication is signalled by '\*', and division by '/'. If nothing else, then, you could well find yourself using BASIC as a powerful calculator.

## STEP THREE: VARIABLE MOOD

Remember 'If x=x-y, what is the price of bananas?'. The sort of algebra you did at school seemed to bear no relation to real life, and referring to numbers by letter (in the above example x stands for one number, y for another and - did you notice - 'the price of bananas' stands for a third number).

When it comes to computing, however, being able to refer to a number with a letter becomes almost essential. You've got three equations to work out which involve PI. This could mean

typing 3.141592 three times, along with all the rest of the equation.

But wouldn't it be simpler if you could tell the PCW what PI is, and have it remember it? It would, and you can. Type PI=3.141592 [RETURN], and then type PRINT PI [RETURN]. Hey presto!

Now you can include PI as part of your calculations, for instance: PRINT PI\*5^2 [RETURN] for the area of a circle of 5 units' radius, or PRINT 2\*PI\*5 [RETURN] for the same

circle's circumference. But what if you need to then use the result in another equation?

Do you have to type it in again? No - you don't. Just give the result of the first equation a name: AREA=2\*PI^2 [RETURN], followed by PRINT AREA [RETURN] will give you the same result as before.

Now to square that result, you can type: PRINT AREA^2 [RETURN], and yield a new result.

The only thing you do have to remember is that the result comes first - 2\*PI\*5=AREA would



be no good to the computer. It needs to know what it is defining (ie 'AREA') before it does the calculation).

The reason is that it labels the result, and files it away in its memory (as it did with the  $PI=3.1...$  earlier); it must know which shelf it is

going to put the number on before it knows what the number is.

This is an important part of BASIC, and one which will eventually come naturally to you: if you are going to give something a name, then you refer to the name before telling the computer

what it is. The technical term for the name and its assigned number is a variable - for the simple reason that its value can be varied.

Type  $PI=PI+4$  [RETURN], and print it - and send centuries of Euclidean geometry straight out of the window!

## STEP FOUR: STRINGING ALONG

But there's a question hanging around here. If I ask the computer to print  $PI$ , it says "3.141...". But what if I want it to say " $PI$ "? Or "RABBIT"? Or "Price\_of\_bananas".

The way we've been operating so far, the computer will give either a number, if one has been defined, or else '0', if no number has been assigned to that word.

You can conquer this problem by putting inverted commas around the text you want printed. So to print ' $PI$ ', type  $PRINT "PI"$  [RETURN]. To print 'price of bananas' type:  $PRINT$

"price of bananas" [RETURN]. You can mix the two up, as well:  $PRINT "PI "PI$  [RETURN] will print both the text and the number.

This brings up a fundamental point: text and numbers are two different concepts. The computer handles them differently. Putting text in the inverted commas makes it sacrosanct: it cannot be subject to the same vagaries as everyday numbers.

You can still assign text to a variable, but it is no longer a variable: it becomes a 'string' (technically a 'string variable', which is only

slightly less of a mouthful than a string vest). You signify its string status by adding '\$' at the end of it (when reading a program, refer to '\$' as 'string', so that 'name\$' is 'name string' - it's much easier on the ear). So you could assign 'Rumplestiltskin' (the word) to 'a\$'. Try this:  $a$="A word"$  [RETURN]  $PRINT a$$  [RETURN].

You can add strings together as well - not mathematically, but logically. With  $a$$  already programmed, type  $b$="$  is a string by any other name." Press [RETURN]  $PRINT a$+b$$  [RETURN] to see it.

## STEP FIVE: INTERFACING THE FACTS

But computers do not work in isolation. Their most important job is processing information that we humans give them. So the next step is getting the computer to ask the user for the values to attach to certain labels. The command for this is "INPUT", followed by the name of the variable it is to expect. Type  $INPUT twenty$  [RETURN], and the computer will wait for you to make an input - it even gives you a question mark as a prompt!

Answer it. Type in 23 (the computer is expecting a variable, since 'number' hasn't got a '\$' after it) - and press [RETURN]. Now type  $PRINT number$  [RETURN], and you will find that

the label 'twenty' refers to '23'. No matter - just type  $twenty=twenty-3$  [RETURN], and mathematical order will be restored.

You can use INPUT for strings as well, as long as the label you give finishes with '\$', the string marker.  $INPUT word$$  [RETURN] will give the same question mark prompt, but will now treat everything you type in as text. Try the following:

$INPUT a$$  [RETURN] Jack [RETURN]  $INPUT b$$  [RETURN] and Jill [RETURN]  $PRINT a$+b$$ .

One further refinement of the INPUT command makes life very much easier if you are

putting together a program with lots of inputs, or for somebody else: after the command INPUT, and before giving the input label, you can add a string as a prompt for the user.

$INPUT "What do you want x to equal ":x$

Notice that you need to put the prompt in inverted commas, and follow it with a semi-colon (you can use a comma instead - which means that the question mark will be omitted).

These little details are essential for BASIC. If they are wrong or absent, then the program will simply refuse to carry out the command. Be sure to check every entry thoroughly!

## STEP SIX: LINING UP

All this shows the power of BASIC, but it is not a convenient way of programming. At the moment, both the programmer and the end user have to use the same computer at the same time!

What we need is a way of storing commands so that they can be executed one after the other, with no further input required from the original programmer.

The way BASIC handles this is by using line numbers. At its simplest, the system works as follows. Each line contains a command or

expression (of the sort  $PI=3.141592$ ). The computer finds the lowest line number, and executes that line's command. Now it finds the next highest line number, and executes the command in that line, before moving on again.

There are ways of 'redirecting' the flow, and of putting more than one command in a line, but we'll come to them in another article - the main thing to grasp now is the idea of program flow.

The important issue now, of course, is to make sure that things come in the right order.

It's no good telling the computer to  $PRINT name$$  in line 10, and then saying  $name$="Achilles"$  by way of explanation in line 20: by then it is too late. Invert the order, and things will be fine.

Getting things in the right order is a matter of organisation: you have to think about how you would carry out an action before you get the computer to do the same. But more of this side of programming - the 'program structure' - in future. Suffice to say, without program structure, even the best safety net will be useless!

## PRACTICAL EXERCISE: RUNNING A TEST PROGRAM

Finally, a real program. It uses most of the features we have discussed above to calculate the area of a circle. See if you can understand how it works - and perhaps even use it as a model for your own experiments. Simply load BASIC, and when you have typed it in - line numbers and all - type  $RUN$  [RETURN], and answer its questions!

If the program stops and gives a message, type  $LIST$  [RETURN], and check every detail. When you find the mistake, either type  $EDIT$  followed by the line number in which the mistake occurred, or else re-type the whole line.

```
A>BASIC
Mallard-80 BASIC with Jetsam Version 1.29
(c) Copyright 1984 Locomotive Software Ltd
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31597 free bytes

Ok
10 INPUT "What is your name ";name$
20 INPUT "What is the radius of the circle ";radius
30 PI=3.141592
40 area = PI*radius^2
50 PRINT "Well, "+name$+" the area of that circle is "area" units"
RUN
What is your name ? Martin
What is the radius of the circle ? 3.65
Well, Martin, the area of that circle is 41.85386 units
Ok
SAVE "AREA"
Ok
```

Use your new-found knowledge of BASIC to type in the program listed opposite

To save it, type  $SAVE "PROGNAME"$  [RETURN]; when you want to use it again, make sure BASIC is installed and type  $LOAD "PROGNAME"$  [RETURN]. Save any programs you invent to disc as well, giving them a relevant name. Here's the program

```
10 INPUT "What is your name ";name$
20 INPUT "What is the radius of the circle ";radius
30 PI=3.141592
40 area = PI*radius^2
```

50 PRINT "Well, "+name\$+" the area of that circle is "area" units"





# THURSTON TECHNIQUES

## ★ LOCOSCRIPT USERS ★ LOCOSCRIPT 1, 2 or PC

"A showcase for the features of LocoScript" APCW Sept '87  
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TempDisc 8.2 is a Double Density disc with 133 files (706k) for LocoScript 2 and LocoMail and includes files for Business, Sport or Personal use. It is available on 3.5" or 5.25" disc and includes Locomail and LocoChar features. All TempDiscs ordered direct are personalised so please include your Christian names. Files on the 8.2 disc include:

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# LOCOPLUS

*The section of the magazine exclusively for LocoScript users: your questions answered, our LocoFile tutorial and then it's Over to You!*

## Question:

As a recent owner and subscriber to your magazine, I should be very grateful for any help you can offer with what should be a simple problem.

Is there a simple way of setting the print head accurately down the page for 1" continuous labels? When printing a small number there is no real problem, but if one should want to print say 100 in one run, any error in setting will be magnified to an extent where it would be likely one address would be spread over 2 labels.

I would greatly appreciate any guidance you can give me in this matter - I'm getting confused!

## Answer:

There is no easy way of positioning the print head exactly up and down a page. It is always difficult to know where the dot matrix head will actually print. However, this isn't a problem in the way you think it is. As long as the first label is OK, the rest will be, too. The amount of paper pulled through between labels stays the same, so if the first printed line is in a reasonable position relative to the top of the first label, the first line on all the other labels will be in that same relative position. As long as the paper type is set up properly in the first place, there will be no magnification effect. That is the secret, then - any discrepancy between

the paper size you have given the computer, and the actual size of the labels will be magnified as the print run goes on. That shouldn't happen, though, as long as the height of the label in the paper type is given as the right number of lines (inches x 6) between the top of one label and the top of the next. In 1" labels, it's 9 lines. When you position the labels in the printer, the bailbar should lie between the first two clear sprocket holes above that label. When printing a run of labels, the best way to proceed is to position the labels so they look about right, then print the file - but only choose to print the first page. If the alignment is correct, print the rest. If it isn't, straighten things up and try page two.

## Question:

I have entered our collection of music tapes into LocoFile in record order.

I wish to obtain a printout in alphabetical order by main index (composer) and sub-index (title of item). When I try to print out with LocoMail - merging the data file into a master LocoMail document - it will only print out the records in the order in which I entered them. Can you tell me what should I be doing?

## Answer:

You don't say why you're printing through LocoMail. It may be because you don't want to print all the information held on the cards. If so, LocoFile can still manage that: you can choose to print an extract, and then tick the items you want printed from each record. What the LocoFile index is set to, has no bearing on the way LocoMail takes the information: the whole thing has to be controlled from the LocoMail

master document. In your master you will have a set of instructions to which you will have to add the instruction `$=index name`, where the index name is the name of the index you want it to run.

If you've used one of the example master documents to run your merge, you'll probably find that something similar is there, asking for the information by record number. You'll only need to change that.

You should look in the manual for any extra information you need.

## Question:

I have been reading 8000 Plus since April this year and I have already discovered an awful lot more about Locoscript than I could ever have filtered from the manual. However, I am still having some problems.

When you go to create a document on a new disc the new file will always be called DOCUMENT.000 and the next one DOCUMENT.001 etc. I have discovered that you can re-number these to whatever you like and the next consecutive number will always be chosen when you create a file, i.e. DOCUMENT.601, 602 etc. However, if I change the word document to anything else, i.e. INVOICE.nnn, the next file I create is still called DOCUMENT.nnn. Is there any way in which the system could be persuaded to come up with the word "invoice" so that a new file will always be INVOICE.nnn?

One further point is that I am having serious problems getting my

data files to merge successfully with master documents when trying to use LocoMail. I have read the manual, tried the examples and followed them to the letter, but when I have tried to set up my own data files and master documents I always get the message "Invalid Record Pattern". I don't think I am trying to do anything too complicated, I simply want a record containing Name, Company Name, Address, Telephone Number and Record Number.

The information I require in my letters is: Name, Company Name, Address and Record Number, this last item being used as a reference point. I haven't included any of the characters that the manual tells you not to use - so why won't it work?

I appreciate that you will not be able to answer all the letters you receive, but I would be very grateful if you could put something in your LocoPlus section about LocoMail, or else recommend another reference book that could help me.

## Answer:

If you don't give a name of your own to a file, the computer has to, or it can't store it on disc. It has to have a label to which it can refer when working.

If you don't name the file yourself, LocoScript gets round this by automatically calling the documents created DOCUMENT.000 and so on.

As you have discovered, the next file created will have the next consecutive number, and there is nothing to stop you deliberately numbering the first DOCUMENT.nnn with whatever you want the sequence to start.

However, what you're actually doing is exploiting a mechanism the computer has to have, and which is not meant for your use - so there's no way of changing it around. It has to be DOCUMENT.000, not INVOICE.000.

I'm afraid it's very difficult to know where you're going wrong with the merge as you didn't include any examples of what you've done.

You're certainly not trying to do



## Surgery hours

The Loco Surgery is your chance to sort out any problems you have with using LocoScript - or any

of its relatives: LocoSpell, LocoMail or LocoFile. The doctor in residence is Liz Bruce, and you can send details of your problems to her to Liz Bruce, LocoPlus, 8000 Plus, 30 Monmouth Street, BATH BA1 2BW.

And don't forget to have a look at the Over to You! section on page 24 - you may pick up a few ideas from there, too!





## Question:

Having read the first question in the September issue, page 17, about using A4 fanfold, and after looking at your user index, I referred to 'A4isms' (issue 56, page 73) and tried to carry out the instructions. All went well until I got to "Write new settings to your startup disc". Does this mean 'copy to the start of day disc?' My start of day disc already has a file called SETTINGS.STD in group 0. Surely I cannot have two files with the same name! In order to get round this I put the new SETTINGS.STD file into group 1.

## Answer:

I'd be surprised if that worked - and even if it did, it's not the most economical way of doing things. What LocoScript intends you to do is to say 'Yes' to its 'write to startup disc' suggestion - and it will then itself add the new information into the existing SETTINGS.STD file. The file will still be very small - probably 1k - but if you look under your [f6]=Settings option, you will find that the new information has been registered.

anything too complicated, and it should be fairly straightforward. As the error message concerns the record pattern, it may be you have not understood that you must define at the top of a data file the pattern in which that data appears.

A LocoMail data file, containing the information you want to use, would simply be a list of the relevant information, divided by 'separators' so the merge program knows where, for instance, the Company name stops and the address begins.

It knows what the separators are by the pattern at the top of the data file, eg: **Name:Address;Telephone [RETURN] Record**, at which point the 'end page here' sign also acts as a terminator, so

the merge knows that the next piece of information belongs to the next record. You have to be careful in your selection of separators, so that the symbol used does not appear until the end of the piece of information you want treated as a unit. It's no good using a comma as separator for the end of the address, for instance, if you use a comma at the end of each line of the address.

It may be as simple as that: that you haven't set up the pattern at the top of your file, or you've been unwise in your choice of separators. On the other hand, it could be that the names you use to give the information in the pattern are not identical to the names you use in the LocoMail master to ask for the data.

If you refer to the 'Company name' as 'NAME' in your record pattern and 'CONAME' in the master, the merge won't work. They must match.

What I would suggest you do is to work with one of the example data files and one of the example masters given on your master disc. Use them as they stand first, and satisfy yourself it does work. Then, rather than trying to set up what you actually need from scratch, try altering these example files to fit your requirements, one step at a time, and check the merge at each step. If it goes wrong, you'll be able to pin point exactly at which alteration things are going wrong and probably then work out why they're going wrong!

## Question:

I am relatively new to the world of the PCW having only bought my 8512 a year ago, and I may only be making a simple error but I was wondering if you could help me. I have just set up two new templates, one for my letters and one for my short stories, but when I try to print out anything saved under these new templates the document is printed too far to the right of the page. I have done what the manual for LocoScript suggests: ie adjust the left offset. This doesn't happen in any of my other files. Please tell me what I am doing wrong.

## Answer:

It could be one of several things, but if you can correct the problem by moving the paper over in the printer, I would simply do that for the moment.

But the root of the problem is most likely to be how you've set up the left hand margins in your templates, though, and have nothing to do with the offset.

Confusion is very often caused by

FILE	NAME	DOC	EDIT	PRINT	SCALE	PITCH	M:
1	FILE	1	LS1	CR+0	LF6	Decimal=	Zero=0
1	Margins	f3=Tabs	f4=Size	f5=Stock	f7=Name	f8=Options	CAN/EXII
-----							
end of header 1 : used for all pages							
-----							
end of footer 1 : used for all pages							
-----							
end of header 2 : used for no pages at all							
-----							
end of footer 2 : used for no pages at all							
-----							

Notice that the scale is ten, although the character pitch is (Pi) is set to 12. This means that the left hand margin actually set to 12/10 of an inch. You can, of course, adjust it as you see fit, always bearing in mind the discrepancy between scale and character pitch

the question of just what you're setting the margin in. You're actually setting it in characters, but how that relates to inches on the page depends on the pitch you're setting them in. To confuse the issue further, you're not setting them in character pitch, but in scale pitch - so check the top of the screen when you're in your main stock layout.

The scale pitch is given over at the right of the middle of the three status lines and says it's 'scale pitch'. The character pitch, which is the setting for what your text will actually be printed in, is shown as 'Pi' over to the left. You may well find there's a disagreement.

If everything's working properly,

you should be able to put the paper in the printer with the left hand edge lined up with the 1 on the bail bar and the first character printed will be exactly where you've set it in your margin.

If you want a one inch margin, and your scale pitch is 12, the left hand margin should be set at 1.2. If the scale pitch is ten, it should be on the 1.

It's also possible that if you have been investigating the left offset option, you have now confused that. You really only need it if you're working in Direct printing. If you have altered it, and things are still going wrong, put it back to 0 and try to fix things through the stock layout in your template.

## Question:

I was struck by your answer to a reader's enquiry regarding printing on both sides of continuous paper and having odd pages on one side and even pages on the other of each sheet. For a person who wants a method with no frills or fancies, I think the following is an easier way.

Print all pages from 1 to the end as usual on one side of the paper. Make

sure you leave one extra blank page at the end. Remove the paper and turn it over. Put it back into the printer and print the whole document again, but this time make sure that the first page is left blank. When that has finished, detach the sheets, and arrange them into the correct order.]

## Answer:

Yes, this works fine if you want two copies. The problem is many people

want to save paper nowadays, being aware of the damage to forests and other environmental problems that is involved. The extra ink is another issue.

The print menu for Loco PC offers the option to print odd or print even pages, so that users of that program can print double sided documents easily - what we have to do is persuade Locomotive that the next release of the PCW version needs the same option.

## Question:

I am writing to you as my last hope for a satisfactory answer to my problem. I have had a PCW 9512 for over 1 year now, and ever since I have had it, the margins that I am getting using LocoScript are 1.25 inches as opposed to the required inch stipulated in the manual. I am feeding the paper flush against the third rib of the paper tray. Other software seems to be giving me the correct margins.

The machine came with version 2.16 and 2.29 and the surprising thing is that BOTH versions are producing the 1.25 inches on the left margin. This letter is typed using version 2.16 and you can measure for yourself the margin size.

I have phoned the Amstrad User Group ( who I have found to be in general quite useless); then Locomotive, who passed me to Amstrad, whose attitude was one of complete perplexity. They suggested

that I change the margins from within the software so that it 'came out as 1 inch' which I am sure you will agree is not really satisfactory.

Can you please help me with this baffling problem.

## Answer:

First, let's be completely pragmatic. Slide the paper about during a print run until the margin is exactly one inch, then mark the back plate of the printer. Nail





polish is what I usually recommend, and henceforth, load the left hand edge of the paper on the mark. No more problems.

I assume you're certain you've got it all set up correctly, as regards pitch and scale pitch, and that you haven't done anything weird to the left offset, which could certainly cause this if someone, some time, has put a value in there.

If you've checked all that, and it's definitely right, then it does sound as if the printer and the software are not agreeing on the relative position of the print head when it starts printing. If you hadn't said that other software was giving the correct margins, I would have suspected that the printer was simply slightly misaligned. However, as it does work correctly with other software, suspicion comes back to something lurking, somewhere, on your SOD disc.

If it's really irritating you, check

everything - but whether you find the answer or not, it's nothing to worry about. Accept the pragmatic solution.

## Question:

**Please can you help me with my Amstrad 8512 which I cannot get to print Landscape with its built in printer. I have tried all sorts of settings and even followed your "New paper type" article in issue 55.**

## Answer:

This keeps coming up. If by printing in Landscape you mean you want the file printed up and down the page rather than across it, as in MicroDesign, you can't.

All that happens if you use Landscape is that the printer accepts the longer side of the paper as the width and

the shorter side as the height. Nothing happens to the file when it's printed. If you want the actual document printed on longer lines, then you will have to change the margins.

In addition, you've probably noticed that your printer cannot accept more than 80 columns, - it simply isn't wide enough to accept A4 on its side, which is usually what people are trying to get it to do.

On the other hand, LocoScript still offers the option. This puzzles some people, but the reason is simple: if you want to use A5 in the Landscape orientation, you can. It also allows you to fit an external printer which has a wide enough carriage to accept A4 on its side. 9512 owners, of course, will be wondering what all the fuss is about - they have always been able to print out using A4 in sideways orientation on their wide-carriage daisywheel printer.

## Question:

I use a PCW9512. I was very interested recently to have the opportunity to examine a PCW 8512 and noticed that when editing a document on the 8512, it is possible to press the [F8] key and select an option from the resultant menu that magnifies your text to about an inch high which is incredibly useful as I have very poor eye sight.

Why isn't this option available for the 9512? Is this option built into LocoScript just for the 8512? or has another program been fed into LocoScript for the 8512 to allow for

this option? A reply would be greatly appreciated as this topic must be of interest to other readers.

## Answer:

These 'Large Edit' characters seem to be causing a lot of interest at the moment. The answer to your question is that they are available for the 9512, but only if you have the correct version of LocoScript. You can get an upgrade to the latest version of LocoScript 2 - which will include this option - from Locomotive for about £15.

See the margin note on the next page for details on how to operate the option,

and what to expect from it. Don't forget that you'll get the 'Sticky Shift' option as well - which can be just as useful.



Large editing characters are available if you have a recent enough version of LocoScript

## Question:

A reader (August, bottom of p22) using LocoScript v.2.28a reported problems with [PARA], [EOL] & [PAGE] use of these keys sending cursor into orbit "right of screen".

I use LocoScript with a CR setting of [+0]. My problem was with the [PARA] key it sent the cursor to the end of the document, scrolling merrily en route. As many of my documents are book chapters of three or four pages, this gave me much amusement.

I sometimes whip in one or more additional [RETURN]s between paragraphs to mark where insert or extra editing is required. The cursor stops after these, so I now set the CR to [+1]half, and have no problems.

(Incidentally, I have been a PCW fanatic for the past 3 years, but have had much aggro of late - the printer broke down, and the replacement LC10 is a fierce and independent beast. I have to revert to Mr Biro for minor jobs! Yet another reason to hang on to the typewriter!)

## Answer:

Unfortunately your (and my) definition of a paragraph does not always agree with LocoScript's definition. To complicate things further, Loco 1 and

Loco 2 don't agree, either.

Most typists separate paragraphs by pressing [RETURN] twice, and so leave a blank line between them. LocoScript agrees that these are then discreet paragraphs, and pressing the [PARA] key will take you straight to the beginning of the next one.

If you're in the habit of marking paragraphs by only using [RETURN] once and then indenting the beginning of the next paragraph, LocoScript will refuse to recognise it as a paragraph break - hence the inexorable scroll to the end of the document.

Yours is the best solution if you want to handle paragraphs like this, and is exactly why the Carriage Return option was put into LocoScript 2. Using this option, the line spacing in the text stays at whatever you have set, but when you press [RETURN], the extra line - or half line - appears. This makes paragraphs clearer on the printed page and gets round the endlessly scrolling cursor when you press [PARA].

I'm sorry you've been having printer aggro, but what have you done about it? If the integral printer really is dead, then it will mean sorting out a different printer. Other 9 pins don't fully support LocoScript and 24 pin or ink jets are getting to be rather expensive.

Once you consider your printer to be dead, you've got nothing to lose. So get

busy with a screwdriver and clean and check and tighten and replace if necessary. Check this list for what to do:

### Problem:

Paper sliding about, squint print lines.

### Solution:

These are usually caused by a simple build up of ink and muck on the platen and the roller. Try giving it a good clean - you'll be amazed at what comes off it.

### Problem:

White line or black line through print.

### Solution:

Sticking pin. The head can be dismantled, the pins removed, cleaned, lubricated and replaced. (One at a time, please, or you'll be sorry, they're different.) With the head out, you'll see little copper leaf spring like bits behind each pin. If they're worn, the pins may not go out and in properly, and you can actually bend them a bit to give more resistance. You can also replace the head, if the print is completely illegible. Invest in a can of the ubiquitous WD-40 and use plenty of it. It can have an amazing effect. The simplest resurrection trick of all is to take a piece of paper with vertical lines of WD-40 on it, and load the printer with it, then print something, without the ribbon. Loads of muck will be loosened by the wet stripes and deposited on the dry. For full details see the May 1991 issue of 8000 Plus - where the above appears in full colour!

## Question:

I sometimes find that the way LocoScript 1 insists on putting the 'Addressee' message on screen when you create a document is unhelpful - is there any way round it?

## Answer:

If it's only unhelpful on some occasions, that implies that on others it is helpful - so you don't want to lose it altogether. The quickest way of dealing with it, then, is to create a document and then press [CUT][PAGE] [CUT] in quick succession - and the 'addressee' message will be neatly cut out of the document.





## Question:

The update booklet to LocoScript v2.28 supplied by Locomotive has a paragraph entitled 'Magnified text display'. Having carried out the instructions, I am unable to get documents to be displayed in double height and double width. Can you please give any advice?

## Answer:

This is rather curious - perhaps you are expecting too much. At the disc management screen of LocoScript 2.28 (or higher), press [F8] and cursor down to 'Large edit characters'. Now press the [+ ] key (the one in a square) to produce a tick next to the option. Edit or create a file - you will see that the characters are twice their normal size. However, this only affects the editing option, and only the characters in the main part of the screen. The Disc Manager and the print out are unaffected. Also notice that you will have to add that tick to activate the option each time you use LocoScript.

## Question:

The LocoScript handbook suggests that the direct printing mode should be used for filling in pre-printed forms and I have occasionally seen the same suggestion in 8000 Plus. In its instructions, the handbook advises:

"To get the right position down the page, turn the Paper Feed Knob on the side of the printer until the line of the paper you want to print on is lined up with the print head."

This sounds very simple, but how,

in practice, is it done? On an ordinary typewriter the print line is clearly indicated but on the PCW 8256/8512 printer there is no guideline.

Certainly, I have never succeeded in achieving a very accurate location. Your advice or that of other readers will be appreciated.

## Answer:

Neither have I. I gave up and use a Tempmate instead. This is an acrylic sheet with a backing paper, and lines and

characters marked on the acrylic. You put the form under the acrylic and read off where to put the responses, then type them on a blank screen using [RETURN]s and spaces with a fixed pitch. It works OK as long as you do a bit of experimenting and agree with the Tempmate where the first line of type will be for a given paper position, for example, to have the top level with the top of the bail bar.

Direct printing is much easier with a PCW9512, as you are able to position the print head exactly, and work from there.

## Question:

Whilst I am far from being an expert on discs, I do have a limited knowledge of how a disc drive works, and I thought that after reading your answer to a disc failure problem (August issue), some readers may be interested in how I coped with a disc failure problem.

I would not recommend it for a standard procedure, only for use in an emergency - when you have a back-up of the failed file, but still need that disc space for something else.

At first I thought I could get round it by simply erasing the faulty file, and then copying the back-up file onto the disc. I was able to do this, but later on I found that the fault had been transferred to another file.

Fortunately I found that using PIP to copy individual files worked as normal, and that after transferring all the other files to a new disc and adding the backup copy of the failed file, order was restored. After all that I decided it was time to consign the old disc to the waste bin.

You have suggested re-formatting the disc, but if you need to use or back up some of the files that is obviously out of the question, and in any case it might not prevent another failure. I am assuming that your back-up copy of the file needs to be edited before you save another back-up (since you would otherwise not be referring to the working copy in the first place!) and that you want to do this at once. Hence my suggestion is only for the 'rescue operation', and I would suggest trying PIP to copy files to the M: drive to make sure that this works before wasting time on the edit operation.

If it does work, and CP/M has told you which file the problem is in, it seems to me that all you have to do is to make sure you don't use that section of the disc.

But since the PCW decides for itself where to put each file, the only way you can do this is to leave the faulty file on the disc, but rename this file, for example as "GARBAGE.000." Assuming there is still enough disc space, you can then PIP the backup copy of the failed file onto this disc and continue using the disc, until you can

buy another new disc. This may not work if the failure is something more general than the message suggests, but it is worth trying. Make a note of all the files that you have already edited that day and which need to be backed up and don't try editing any others unless this is absolutely essential. You might like to PIP all the amended files onto your backup disc before you switch off. The only trouble with this is that with a simple PIP command they will all be put into group 0.

To simplify the rest of my suggestions, I will assume that you are using two drives and that your data files are on a drive B: disc. I am also assuming that you make back-ups simply by copying the disc at the end of the day. If you do something different, you will have to amend the details to suit your 'modus operandi'.

Buy two new discs as soon as possible and format these either with DISCKIT or LocoScript 2. One should be double density format and will obviously become your new working disc. The other should be temporarily formatted for drive A:. Copy your backup disc onto the working disc.

Remove both discs and boot up CP/M. Insert the failed disc and erase all the files from it except for "GARBAGE.000" and the ones you need to transfer. That is, erase the ones that are now safely stored on the new disc. The easiest way to do this is to type "ERA B:\*. [c]" and press [ENTER], then press 'Y' each time a file you don't want is displayed, and 'N' for the ones you do want kept. Don't forget to press 'N' for the "GARBAGE.000" file. This is just to ensure that CP/M doesn't move a good file to the faulty section of the disc. When the A> returns, type "PIP M:=A:PIP.COM" and press [ENTER], followed by "M:." and [ENTER] so that you can still use PIP with the CP/M Start of Day Disc removed. The prompt will now show M>. Replace the Start of Day Disc with the blank drive A: disc and type "PIP A:=B:\*. \*" and [RETURN]. You will be asked to confirm this choice (press 'Y'), then wait for the M> prompt to return to signify that your instructions have been carried out. If you feel comfortable with CP/M and have only a few files to

save, you can of course PIP these by name instead of erasing the rest. Having copied them - by whichever method - you can breathe a sigh of relief, toss the failed disc into the bin, and get back to the comfort and safety of LocoScript.

With your new working disc in drive B:, replace the LocoScript Start of Day disc with the new drive A: disc, and press [F7] (LocoScript 2) or [F1] (LocoScript 1). You should find all the amended files in the first group on the disc. From the working disc, erase all the files that are on the A: drive disc. This step is not essential if you use LocoScript, since it asks if you want to replace an existing file with a new copy. All you have to do now is to use the LocoScript 'copyfile' option to move these files into whichever group on the B: drive disc you want them in. If there are several and if you have to erase the old files, it might be a good idea to show the Limbo files to remind you where to put the new ones. Finally don't forget to copy this disc again onto your backup copy disc.

If you turn grey at the thought of using CP/M for anything except DISCKIT, then you could try erasing "GARBAGE.000" from the failed disc and attempting to copy this old disc onto the new disc. I would not recommend it, however. Even if the copy works, in certain cases it might possibly result in your having exactly the same problem with the new disc. So although it is slightly less convenient, I feel that PIP is a better option in this case.

## Answer:

All of which bears out what I have always said: Don't get yourself into this situation in the first place. You should be muttering it in your sleep by this time: 'I will back up my discs... I will...'

Having got yourself into this mess, then absolutely anything is worth trying, and this solution seems as good as any at this level. A 'Disc Doctor' is also a good idea. Try Dave on 089 283 5974. You'll be helping charity into the bargain.

You might also like to turn to our 'Over to You' page for another tip on how to deal with this extremely frustrating subject.





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# Paper Chase

*Karen Donaghay shows you how cut corners when printing out your data files - without destroying a forest while doing so!*

## Address sense

If you want to do a big mailshot from LocoFile, the printing principles covered in this tutorial can be used to print out sticky address labels. It is a topic that is also covered pretty well in the LocoFile manual - just in case you get stuck.

Computers are often slammed as paper-wasters. With printouts piled up on countless desktops, they have probably caused the demise of many a pine forest.

But sadly, it is often unavoidable. However much we value our ecological principles, many programs just don't work in an efficient way.

One of the worse culprits for the PCW is, (surprise, surprise) LocoFile. A normal LocoFile printout will often leave huge expanses of blank paper in between each record.

And searching through the masses of paper is hopelessly time-consuming, as well as being a waste of the world's limited resources.

So, what can you do to cut down?

Well in LocoFile there are a number of techniques that can help you to use paper more frugally. The problem stems from the 'one record - one page' philosophy.

In other words, the program prints one record on one complete page, regardless of how big or small that record is. If you have a hundred records, that means printing out a hundred pages - a lot of paper by anyone's standards.

Looking at different ways of printing in LocoFile is fraught with confusion and one way to avoid the problem completely is to use LocoMail.

When you merge your data with a LocoMail document, you can do a print-out in just about any form that you

choose. But LocoMail has its own drawbacks. First of all, it is a hard program to master. It could take you some time to write the printing program that you need. Secondly, it is not worth buying LocoMail for this facility alone.

The good news is that there is another way. We are going to show you how to set up your PCW printer so that it can do exactly what you tell it to do.

We have chosen three scenarios. One is the standard printout, one record per page. The next example shows you how to use smaller paper and how to set up a standard paper type, that can be used over and over again. The third example is probably the most useful and shows you how to print out data in a list.

## THE EASY WAY - ONE RECORD A PAGE



Printing out the entire database is an option on the LocoFile Menu.

Name	Surname
Sharlene	Aaron
Address	
42 Walling Street,	
Bath,	
Avon.	

The standard printing method only uses the top left hand corner of the paper, and so wastes a large amount of paper

To keep matters simple we will use, by way of example, the most common type of database - an address file. You can either copy in our suggested version or, if you prefer, you can try out the following techniques on an address file which you use regularly.

First, let's take a look at the easy option - printing out one record per page. This is a piece of cake, since all it involves is a few key presses and plenty of paper for the print out.

To begin with, you need to load your datafile in the usual way and choose the correct index. Remember that, whatever order the records are stored in, this is the order in which they will print out. We chose to index the fields in Surname order, so the first record to be printed would be the address of Mrs Aaron.

Once they are in the correct order you can choose the printing menu by pressing [F4]. This is shown in our screenshot and allows you to choose

what you want to print out. You can print out every address that you have by selecting the first option, 'All records'.

If you only want to print the record on the screen, you should choose to print Current record. The other option is to print only 'Changed' records. This can be useful, as it will print out all the addresses that are new or altered since you last called up the database. (If you keep a printed copy of your database, then you should choose this option at the end of every work session.)

You can print out the whole record or just sections of it. But more on that later. Why not try these options for yourself? If you are starting a file from scratch, print out the entire file.

Or, if you are using an existing file with lots of records, we suggest adding some bogus records to the beginning of your database. Then choose to print out just these new records (choose 'Print changed records').

## THE SIZE FACTOR - USING SMALLER PAPER



LocoScript asks directly for all the things it needs to know when you set up a new paper type. All you have to do is fill in the values!

One logical solution is to use smaller pages. This method is ideal for those who want to produce a back-up of their entire database on traditional index cards. You simply need to measure the size of the card and enter the appropriate dimensions as a paper template.

To do this, you need to define a new paper type in LocoScript. Go to the Disc Management Screen in LocoScript 2 and press [F6] for Settings. You will see a number of paper types on the menu shown in our screenshot but none are

suitable. So, you have to choose the option 'New Paper Type' from the menu.

This gives you a list of the current settings and also lets you overwrite these to define your own paper settings.

For the index card we set the values as shown. To save this new type of paper, scroll down to 'Create new paper type'. The specific dimensions of the Card can be added to a standard list of paper types. To have this automatically saved on to your LocoFile disc choose the option to 'Write SETTINGS.STD'.



Now you can make this the type of paper used by the datafile itself. Load up the database by pressing [F1] and choosing to 'Run LocoFile' as normal.

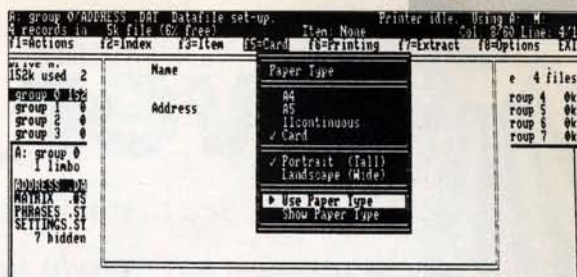
Then press [F1] and choose 'Database set-up'. This allows you to set the default options for the datafile you are working with. Once the setup screen has appeared you can press [F5] for Card and pick the option to 'Select paper'.

'Index card' will be one of the list of paper types and you need to tick this. Then select the line that says 'Use paper type' and press [ENTER]. This saves

'Card' as the type of paper used with the datafile. Now, whenever you try to print, the program will assume that you want to print on to card of this size.

If you go back to the main datafile by pressing [EXIT] and then try to print out a record, a dialogue box will appear. It asks whether you want to use the intended paper or the current paper. You should choose the option to use the 'intended paper'.

Having chosen the intended paper for the database, you will see it printed out on to cards in the normal way.



The paper type that you have set up can now become LocoFile's default option, so that you can use it every time you print out

## ALTOGETHER NOW - PRINTING IN A LIST

Another solution is to cheat. It is possible to tell LocoFile that you are using small paper when you are, in reality, using large paper. This means that several records can be printed together, all on one page.

Ultimately, of course, you can have the paper type set to any length you wish. For instance, if you wanted to print out all of the names in a long list, you could have a 'bogus' page length of two.

This means that two lines of each record would be printed, and then the next record, and so on.

This time we are going to use the on-the-spot method. If you do not wish to repeat a certain printing format, there is no point in setting up standard paper types in LocoScript and Intended paper types in LocoFile. Instead there is an easier 'one-off' method.

Simply press the [PTR] key. Choose to 'Show Paper Type' and press [ENTER]. Then you simply change the detail to whatever you want.

We called our new paper type **Short**. We made it two lines long with a gap of

one line. The easiest way to print out lists is to use continuous stationery and this means that the option to 'Ignore Paper Sensor' is not switched on.

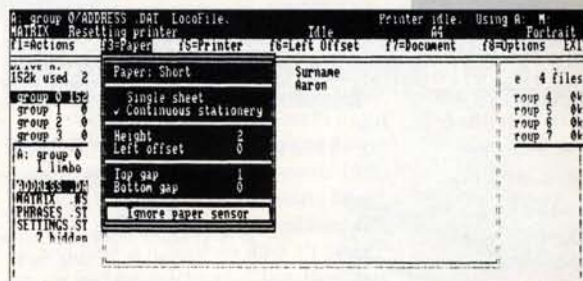
Finally, press [ENTER], choose the option to 'Use Paper Type' and press [ENTER] again. The [EXIT] key will return you to LocoFile and you can now do your printing.

In this case we do not want to print out the whole record; just a list of the names. So when you choose [F4] to get the print menu, this time you should select the 'Extract' option.

You will be given a list of all the different fields. All you have to do is move down the list, selecting those you want to print by pressing the [+] key.

Then you simply move the cursor to the line that says 'Print' and press [ENTER]. A message will appear, saying that the current paper is different to the intended paper.

In this case you choose the option to print using the 'Current printer and paper'. The result is a list of all the names on your datafile.



A 'short page' is set up for use instantly. Any part of the database can be printed out in a long list

Charlotte Aaron  
Stephen Argos  
Margaret Anderson  
Paul Anderson

## Mail shot

If you do decide to buy LocoMail, then you have a whole set of options open to you. Rather than using trickery to get the kind of printout that you need, LocoMail is specially designed for this kind of task.

It can take data from LocoFile and print it out in perfectly laid out pages. LocoMail costs £29.95 plus VAT from Locomotive Software, (0306) 740606.

## OF PRINTERS AND PAPER

The reason that this entire topic is so fraught with confusion is the way that LocoScript and LocoFile are set up. Basically there are several standard types of paper that they both recognise, such as A4 and 11 inch continuous paper. The layouts for these standard paper-types are supplied with the package.

If you want LocoScript or LocoFile to recognise any other sort of paper, you have to define it yourself.

This can be done in one of two ways. It can either be defined and saved on to disc as another standard paper type (as in the second example) or it can be defined and used on the spot, (as in the first example) and then discarded.

To make matters even more confusing, you can actually associate one standard type of paper with one particular database. This is what is known as the 'Intended paper type'.

There is also the Current paper type which is the type of paper the printer is set up to use at any given moment. The trick is to know which one you are using at any given time.

Although it may sound confusing, this is one case where practice makes perfect.

But what about the paper itself? How do you know which layout options to choose? For instance how long is a piece of paper? One rule to remember is that LocoScript and LocoFile work in lines, not inches. If you are using the standard size of text (pitch 6) then you can easily work out how many lines there are per page. Take our index cards as an example. They measured six inches in height. Multiply the height in inches by six and you end up with the number of lines - in this case 36.

Another tricky point to remember, when you are using continuous stationery, is to avoid printing on the perforations. If you are using 11 inch continuous stationery and you tell LocoFile that the paper is actually only two lines high, you will get exactly 33 entries on one 11 inch page.

Or if you defined the 'bogus' page as being 22 lines long, you would fit three entries on to each 11 inch page. And so on. The moral of this story is make sure

that your page can divide evenly into sections, whether they be sections of 22 lines, 33 lines or even two lines.

Finally, if you want to use single sheet stationery to print out more than one record per page, things get even more complex. This is where we need to make use of the paper sensor.

Basically, a paper sensor is there to tell you when the paper is finished. It is usually used with continuous paper, so that you know when to reload.

However, there are special cases and the thinking goes as follows. If you are printing several records in a list on one sheet of paper, you have already defined the page as continuous. This means that the printing does not stop after each 'two line' page. However this also means that the printer will carry on printing, even when the sheet of paper is finished.

The way to avoid this is to make sure that there is no tick beside the option to 'Ignore Paper Sensor'. In other words the paper sensor is switched on and will prevent you from running out of paper at the end of a page.





# Over to You!

*Your chance to not just amaze your friends with your LocoScripting prowess – but to help them too! More tips from our readers' PCWs*

## DIR Straights

Re: your margin query on page 18 of issue 60. Pressing [ALT]+P (it beeps) before TYPEing a file or using DIR in its many forms will make all screen output echo to printer. Pressing [ALT]+P again (it doesn't beep this time!) reverts to normal.

As an alternative to using [ALT]+P load the printer with paper and simply press [f7] (it beeps) to go into print mode. Type in DIR[user=all] to show all files on disc for printout from CP/M. Press [f7] again (it doesn't beep) to reset to normal.

Bob Kelly,  
Warminster

## Over to YOU!

Don't forget that we want to hear from you if you have any LocoScript tips. Send them in to us at: Over to You, 8000 Plus, 30 Monmouth St., BATH BA1 2BW.

## Templates in reverse

The LocoScript 2 template facility is very useful; however, it is not always possible to have all the layouts you want in the same template file. One way round this is to put the relevant layout codes into a Phrases file, and to paste the layout you require into the document. In one Phrases file you can have over 20 layout codes, enough for normal and indented layouts, each at pitches 10, 12, 15 and 17, with each pitch at both line spacing 1 and 2, as well as several special layouts like section headings, paragraph numbers, and so on. With such a Phrases file, all your layouts are instantly available.

Another tip deals with LocoScript's lack of a WYSIWYG (What You See Is What You Get) facility to show on screen how text in special styles will be printed (other than underlining). However, text with special styling can be made to stand out by the use of the 'reverse' option. Reverse swaps the foreground and background colours, but as the PCW's own printer can't print reverse characters, there should be no effect when you print the document. However, I can make no claims about other printers.

Paul T. Seaman  
Renfrewshire

## Dating made easy

I have found that the following template arrangement for letters saves a bit of bother, particularly on January 1st and onwards when one can easily type in the old year instead of the new one.

Create a new empty document called TEMPLATE.STD and use [f2] 'Change layout' to insert a left tab six spaces in from the right hand margin. Exit from 'Change layout' and then type in your address and telephone number in the way you prefer. Press [RETURN] to leave one blank line, and then type the following codes: [+]LS0 (that's LS zero) and [+]RA, followed by '1991.' (don't forget the full stop after 1991) and then [RETURN] again. Then type code [+]LS1 and press the [TAB] key: do not press [RETURN] this time, just finally press [EXIT] and select 'Finish edit' to save this as a new TEMPLATE.STD for your letters group. When the next January 1st comes round, you must of

course substitute 1992 for 1991.

When you create a new document in this group, press the [PAGE] key and the cursor will jump immediately to the left of '1991.'. Type 'November 20th' or whatever the date is, followed by [RETURN]. Although the 'November 20th' text will appear on screen one line below '1991.', it will be printed out correctly on the same line as the year. In addition, the cursor will now be in the right place for you to begin typing.

Patrick Leggatt  
Farnham

## Finding him/her

On your letters page in the May issue, Philip Shapiro describes how he saves his address etc. as blocks to be pasted into letters as and when required. I find it easier to create a TEMPLATE.STD which puts the address into the header, using it to set up the 'first page only' option, the date, any references, and the beginning of the letter itself – 'Dear Sir' or whatever. I use capitals and reverse video for the date to remind me to insert the correct date – which can be a block or a phrase.

I use several templates like this, some with footers in the style 'Page x of y' which automatically number the pages for me. A TEMPLATE.STD that is completely blank is useful for non-headed notes since without it LocoScript will look for the nearest one.

Finally, a quick tip: when using [FIND] and [EXCHANGE] include a space either side of the word you are altering, otherwise all the exchanges may not necessarily be what you expect. For instance, I was changing all the references to 'his' in our Operatic Society's constitution to 'his/her', but failed to include the surrounding spaces in the search string, resulting in such gems as 'his/hertory' and 'this/her'. If I had replaced '[SPACE]his[SPACE]' with '[SPACE]his/her[SPACE]' throughout the document, everything would have been well!

Michael Harris  
Cheadle

## Start of Day blues

As a newcomer to both the the PCW and your magazine I have never written a letter to you before, but was tempted to

do so by the letter from the person with the disc error problem. I have experienced a similar problem twice in about three months, and, though my solution may be based on ignorance, it has worked in both cases for me. Simply take another Start of Day disc, and start LocoScript using that disc. Take this disc out, replace it with the faulty disc and then signal a disc change using the [f1] (or [f7]) key. By bypassing the Start of Day stage on the faulty disc, you may then be able to transfer any information you need from the faulty disc to a new one using drive M: and the [f3] key.

Collin Field  
Gravesend

## Double dictionaries

Regarding the merging of user dictionaries in LocoSpell: during some disc housekeeping the other day I decided that I wanted to merge two user dictionaries, or USERSPEL.DCT's as they are called. The manual does not explain how to do this, so here is my solution. You must be using LocoScript 2.28 or a later version for this to work.

Create a document in the group which contains the USERSPEL.DCT which you wish to add to. Press [f1] and select 'Insert text'. Then move the cursor to the USERSPEL.DCT which is to be added and select it. It will flow into the document. Then press [f7] and select 'Automatic addition'. All the different words in the dictionary to be added will be inserted into the original. Press Exit and 'Abandon edit'. Lo and behold, merged dictionaries!

David Maxwell-Lyte  
Powys

## Quick Keys

In addition to the keys mentioned in June's 8000 Plus – did you know that you can move quickly round any menu in LocoScript using keystrokes? For instance, the [f1] menu from the Disc Manager can be used as follows: M takes you to 'Make ASCII file', S to 'Show phrases', L to 'Load phrases', SV to 'Save phrases' and SB to 'Show blocks'. Other menus follow the same sort of format. It sometimes seems a bit reluctant to perform, though.

Eric Shoddert,  
Wiltshire



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*"Makes Locoscript look like a snail"* 8000 PLUS

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Protext is also available in German at £59.95 (Prowort)

### Special Offer - Save £20

Buy Protext together with the book for £49.90 and save £20 off RRP.  
(RRP £59.95 + £9.95 = £69.90)

**Protext + Book £49.90**

## ... The Book

This is an independently produced book about Protext, written by Rob Ainsley.

The book features a large section of tips for easy reference and is well illustrated with screen shots and printouts.

It also includes a section written to help the Locoscript user to 'convert' quickly to Protext.

It is an essential purchase for any current or potential Protext user whatever their word processing experience.

### Protext...A PCW User's guide

246 pages, illustrated paperback

**Price £9.95** + £1 post/packing  
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# CP/M languages and PC Protext

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For further details please contact Arnor. Protext 5.0 is available for IBM PC and compatibles, Amiga, Atari ST and Acorn Archimedes.

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# The Learning Curve

*Getting to grips with your PCW isn't always an easy task. Alec Rae looks at a new LocoScript tutorial for absolute beginners*

**ZAPLEARN LOCOSCRIPT 1 BASIC ■ £27.50 + vat (inc p&p) ■ Sword Computers ■ (0204) 496274**

There are two distinct types of PCW user. There is the instinctive kind - people who read the LocoScript manual as far as the third page, load it up and press all the buttons until they get something to work. And then there is the careful, systematic kind.

If you tend towards the first description keep well clear of Zaplearn's LocoScript 1 Basic training tutorial. If you are of the second persuasion - and if you know absolutely nothing about LocoScript 1 - you could well find the tutorial ideal.

This is the first in what is promised to be quite an extensive series of tutorials on all aspects of LocoScript 1 and 2 and all the Locomotive products. But LocoScript 1 Basic must be the ultimate test for this kind of program.

This is aimed very much at the person who is staring, with open eyed wonder, into a PCW screen for the first time. It takes absolute beginners, gently but firmly by the hand and leads them through those first nerve-wracking few sessions when you are convinced that if you press the wrong button the PCW will explode in your face.

And it does this very, very thoroughly. It is perhaps difficult for some 8000 Plus readers to remember that far back, but there was a time when even they weren't quite sure what 'a cursor' was (It appears that it's not an 8000 Plus reviewer when his PCW crashes).

So wouldn't it have been wonderful to have a little line of text on screen saying "This is the cursor" and a little arrow pointing directly at the cursor. There would certainly have been no doubt in your mind.

Here is both the strength and weakness of the Zaplearn tutorial. There has been a lot of thought put into them and a lot of pre-planning. If you follow exactly the instructions on screen a lot of clever things happen (like, for instance, the cursor duly appearing alongside the little arrow).

## "Ve haf vays...."

But you really have to follow the instructions to the letter. You get dire warnings in the manual like "TEXT before an instruction may TELL you what you are GOING to do. BUT DO NOT DO IT UNTIL I INSTRUCT YOU TO DO SO..." OK. There's no need to

shout. Of course there are very good reasons for this "Ve haf vays of making you follow instructions..." attitude. If you start disappearing off into corners to do your own thing you can get lost and all the careful planning of the tutorial goes out of the window.

For terrified beginners this strong, forceful attitude might be reassuring. But for the more adventurous it may also miss what many consider the real fun of learning LocoScript - pressing buttons to see what will happen. And honestly, no-one has yet found the combination of keystrokes that makes the PCW explode.

The idea behind the Zaplearn tutorials is sublimely simple. You load up the program you are learning - in this case LocoScript 1 - move one of a number of lengthy text files into the

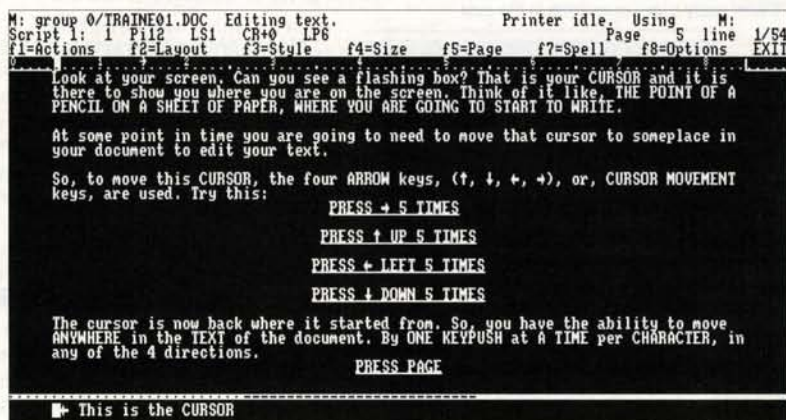
M:drive, open it up and start reading. The text on screen tells you exactly what to do, what buttons to press, where to place the cursor and anything else you can think of in almost total detail.

It doesn't just say press the [+ ] key beside the Space bar. It describes the key and where it is found on the keyboard in minute detail. Then when you have the idea of which key it is talking about it explains, with the same thoroughness and patience, the short form that it will use to describe that keystroke.

We would defy anyone to still be confused after that.

## A talking PCW?

This perhaps makes the whole thing all sound a bit heavy and sombre, which is not the case. The writing is light and



Imagine the excitement at finding out what a cursor is - and how to move it around

## CP/M VERSUS LOCOSCRIPT

There is an argument to say that tutorials like this needn't have been written in LocoScript at all. For instance, all the really fancy software tutorials you get on IBM compatible PCs work separately from the program they are demonstrating.

You load the demonstration program and it fairly whips you through simulations of the program screens and demonstrating all the commands using the power of modern computer technology.

You press [RETURN] and the cursor leaps all over the screen, ghostly hands type interesting things in the right place on the screen and you can carry out the most complex operations imaginable in seconds.

The argument is that a program could have been written in CP/M to produce all this technological wizardry - learning without tears. The disadvantage is that you never really seem to learn anything from such tutorials. You know that the program can do all sorts of really clever things, but it usually happens too quickly for you to take things in properly.

This is quite the opposite with Zaplearn. It won't leave a subject until you know it thoroughly. If it did, you could always scroll back and read it again. And there is nothing like the 'hands on' approach, pressing keys and seeing what happens.

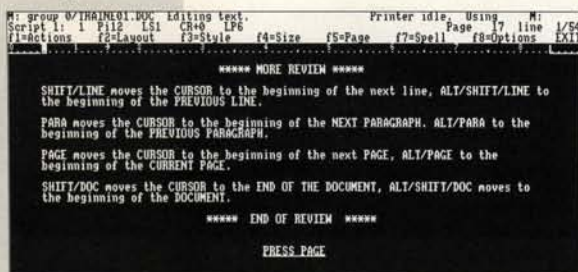
## A good deal

Sword Computers usually sell their Zaplearn LocoScript 1 package for £27.50 plus VAT. However, for 8000 Plus readers, the program is on offer at a discounted price. So, if you order direct from Sword, be sure to claim your 10% discount!

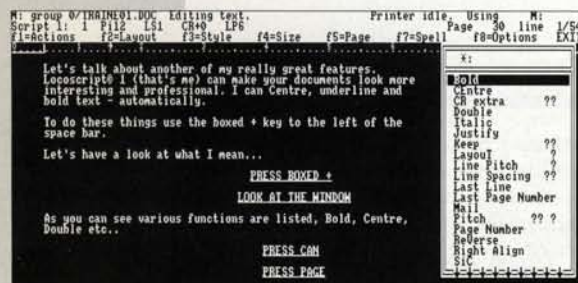
## Look around!

If you don't feel like teaching yourself LocoScript, you could always attend a course at a local college or institute. For details of organisations in your area, why not turn to the Good Club and Training Guide on page 59 of this issue!

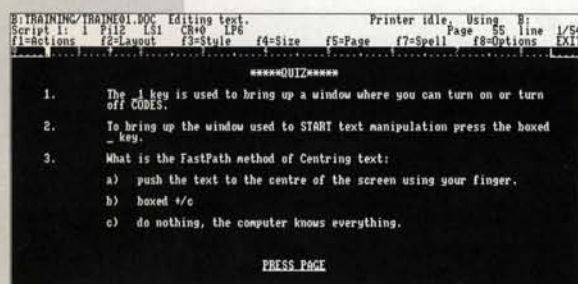




Regular reviews make sure you have not missed anything the first three times



The page layout is designed to allow you to look at menus without obliterating text



Some really tricky questions in the quiz

humorous. It is written in a easy-going conversational manner using the first person. It takes to page 37 of the first lesson to explain that this first person is actually the PCW talking to you (we think it used a ghost writer).

This informal, chatty approach works quite well. Certainly any computer that chats to you in such a friendly way can't be too frightening. There are little quizzes to make sure you are paying attention but even the PCW admits that it doesn't make these too hard. For instance to centre text it gives you three options  
a) Push the text to the centre of the screen with your finger  
b) boxed +/-C  
c) Do nothing. The computer knows everything.  
Even if you don't know the answer, take a wild stab at it.

Things get a bit more difficult as you go on. For instance, in the last tutorial you get difficult posers like "You set margins by  
a) using a ruler to draw two lines down the edge of the screen.  
b) pressing [f2], selecting NEW or CHANGE LAYOUT then using the GHOST CURSOR on the SCALE LINE and using the [f1] and [f2] options.  
c) turning OFF the computer and have half an hour's sulk.

We must admit it had us stumped. This comes, remember, after having learnt the process in minute detail and

having read through a review of the work so far. Under the circumstances, you feel the quizzes could have been more testing.

Don't think it is all just boring reading. There are only a small number of words on each page and it is laid out to make it easy to read. There are no great swathes of text to plough through.

Considerable thought has been given to the positioning of the words. For instance in the section talking about how to use the menu system to embolden or italicise words, the text is placed in such a way that you can call up the menu and not obliterate any of the instructions.

They have even used the, admittedly, limited graphic abilities of LocoScript to produce a reasonable simulation of LocoScript menus.

And there is always something to do. You carry out the instructions on the text on the page, immediately putting into effect what you have just learnt.

As the pages slowly scroll by (there are 62 pages in the first lesson alone) you slowly but surely build up a systematic knowledge of the program, eventually covering the inner mysteries of text handling and page layouts.

The final element is a series of practice documents. You use these to put into practice the skills you have learnt. You delete and add text, move blocks, correct spelling, highlight text and produce quite complex layouts.

This is backed up by a reasonably thick manual showing you what the final example should look like.

Again it is filled with dire threats, such as:- DO NOT TURN TO THE INSTRUCTION SHEETS IN THIS MANUAL UNTIL THE TRAINING DOCUMENT ON THE SCREEN TELLS YOU - but it is really a good idea in principle.

There is a world of difference between knowing what to do in theory

and actually putting it into practice. One possible disadvantage to this kind of tutorial is the fact that, by its very nature, it has to adopt a "Tell me the keystrokes" kind of approach.

Nowadays software programmers work very hard (and the Locomotive team work as hard as anybody) to produce user friendly software that you can use instinctively - without constant reference to a book or manual.

When you look at a LocoScript screen there should be enough clues there to tell you what to do or where to go to carry out any task. If you want to change the Layout of the page it is probably more sensible to train the learner to look at the top of the screen to look for the words f2=LAYOUT than to expect them to remember to press [f2] to get the Layout menu.

Trying to learn any program purely by heart is both difficult and confusing. While Zaplearn LocoScript 1 Basic is very thorough, it perhaps doesn't pay enough attention to the theory behind using software. And this rigid, regimented attitude might even increase the users fears of using the program.

Newcomers need to be told that there is very little that can go seriously wrong when playing about in LocoScript - not constantly reminded that they have to follow instructions to the letter or else some inexplicable dire consequence will surely follow.

Having said this, there are people who are so nervous of computers that they agonise for hours over each keystroke. For these people this might well be the only way to give them the confidence they rely upon to get them started on the right footing.

And finally, Zaplearn LocoScript 1 Basic is really for absolute beginners. If you have used the program before it will probably be more sensible to save up for LocoScript Advanced.

## COMING SOON....

A real strength in the Zaplearn series of tutorials is that there are modified versions to suit each type of PCW. This is very sensible. Say you want to describe in detail where the [f1] is you would have to mention where it was on an 8000 series machine keyboard and then another description of where it was on a 9512 keyboard or even on a Technique keyboard (they are all quite different).

By the time you had ploughed through all the options you would probably have lost interest in finding it anyway.

So for the LocoScript 1 Basic tutorial there is a different version for a PCW 8256 and a PCW 8512. There is even another two versions set up for anyone using a Technique keyboard on either 8000 series machine.

For the LocoScript 2 Basic the choice is even wider with a special version for a 9512 and another for a 9512 with a technique keyboard. This makes a grand total of six permutations

That is all that is out at present but the company is promising a number of launches in the near future. There will be a LocoScript 1 Advanced tutorial and an Advanced LocoScript 2 version for all the possible permutations of machines.

For further in the future the company are planning programs to cover Locofile, LocoMail and LocoPC. It is with programs like LocoFile and LocoMail that a Zaplearn tutorial would probably come into its own.

LocoMail, for instance, is a complex, sophisticated program and therefore not one the most approachable pieces of software. A set of hands-on practical examples would be an ideal way to get started.

**VERDICT** - An ideal program for any absolute beginner who is nervous of using LocoScript. The later programs, giving more advanced tuition on more complex subjects would probably be of more value generally.

## Zaplearn LocoScript

### Pluses

- ▲ It is very thorough
- ▲ You put the skills you learn into practice immediately.

### Minuses

- ▼ A bit rigid in its approach
- ▲ Doesn't bring out the true intuitive nature of LocoScript
- ▲ This program is only for absolute beginners.

Ease of Use	3/5
Documentation	3/5
Range of features	4/5
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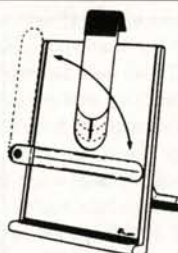
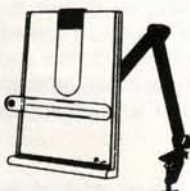
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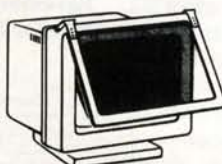
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# Tweak Preview

*MicroDesign expert Rod Patient takes a look at how Creative Technology's utilities disc can help you add flair to your DTP designs*

Just when you thought that you had reached desktop publishing perfection with the output from your trusty old PCW using MicroDesign, along came Tweak. Written by Creative Technology and included on their utilities disc, it could more appropriately have been entitled "Everything You Ever Wanted To Do To A Graphic Image But Were Afraid To Ask!"

If you were a lecturer in advanced mathematics you will understand how complex this program is; if not – and we suspect that this goes for the majority of you – you will have to take our word for it – Tweak is very powerful! But don't let that put you off. All the complicated bits are hidden behind the usual user-friendly face common to MicroDesign and ProSCAN. Because of the complexity of the calculations involved, some operations can take a long time (did we hear someone mention 4 hours for an ambitious Circle operation?).

In reality, most of the operations we have used took between 5 and 20 minutes to process. This sounds like a perfectly good excuse to treat your PCW to a Cirtech Sprinter!

A couple of points to bear in mind before we start. Before creating your "tweaked" image, think about how you want the finished image to look. You can not just tell Tweak to make your graphic into a teardrop shape or a fan and so on. What you must do is break down the required result into stages and then work out which of Tweak's operations to use (and in which order) to achieve that required end result. Some shapes, for example the "teardrop", only require one Tweak operation. Others will need four or five operations depending on the complexity of the required result.

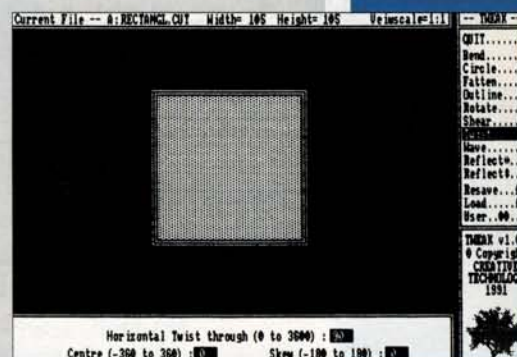
When using several different operations, it is a good idea to save each stage under a different filename. In that way, if something goes wrong (and the chances are that it will!) you won't have to start again from scratch.

The best way to learn, they say, is to have a go – but before we do, it may be useful to understand a few basic things about the effects we are going to use. When "Tweaking" an area, the original image stays the same relative size.

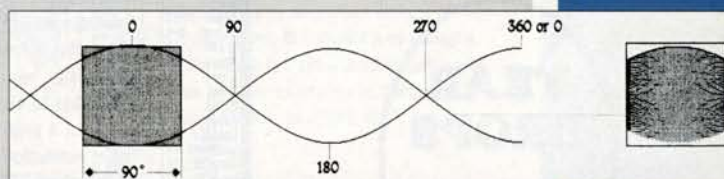
The settings we choose alter the frequency of the effect and the position of the image within the effects cycle. Consider the following image (a shaded rectangle) used with the Twist operation.

## PRACTICAL EXERCISE ONE - USING TWIST

In this first example, our image represents 90 degrees of the cycle (one cycle is 360 degrees). We know that the angle will be 90 degrees because we set it at 90 degrees. The Centre of the rectangle is held at zero degrees by setting it at zero degrees. Skew (the offset between the two opposing wave forms of the image) is also held at zero. After the settings are made and we press [ENTER], our original rectangle will be "squashed" to fit into the area defined by the Twist waves.

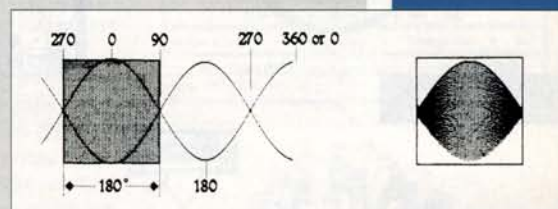


This time, note the effect when we set the angle to 180 degrees (half a cycle). The Centre and Skew settings remain at zero. From this it can be seen that the higher the

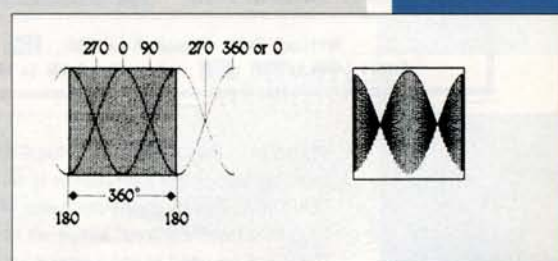


number of degrees set for the angle, the steeper the curve will be. It follows of course that the lower the number of degrees the shallower the curve.

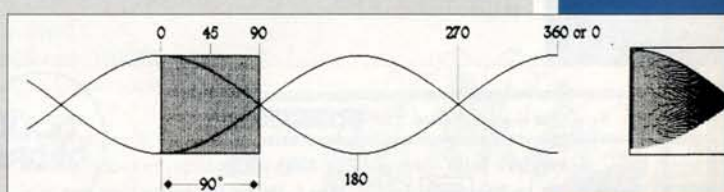
The same rectangle again but this time the angle is set to 360 degrees (a full cycle). The Centre and Skew setting still remain at zero. Increasing the angle beyond 360 degrees will start the cycle over again and give more twists to the image.



We use the original rectangle again (it must be getting worn out by now!) with the angle set to 90 degrees, but this time move the Centre to 45 degrees instead of zero. You can see from the diagram that this has pushed our rectangle along the wave and created a different final shape. The Skew is still set to zero degrees.

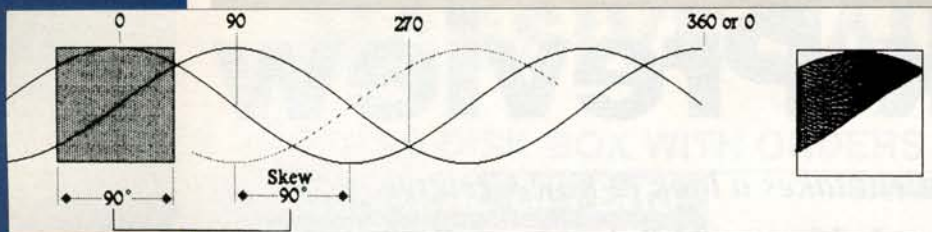


Although these examples have been on a "Horizontal Ribbon", the same effects will be achieved using the "Vertical Ribbon", except that the sides will be affected instead of the

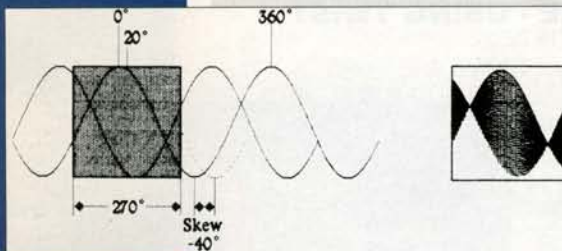


top and bottom. Don't forget that the Skew angle is directly related to the Twist angle. By that we mean that at a Twist angle of 90 degrees, a Skew angle of 90 degrees will shift the waves out of phase by the width of the original image.



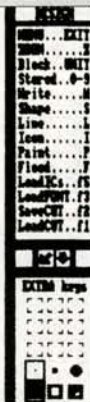


Still with our old faithful rectangle, in this example we set a Horizontal Twist through 270 degrees, a Centre of 20 degrees and a Skew of minus 40 degrees. Again you can see from the diagram that this makes a drastic change to the appearance of the original image.



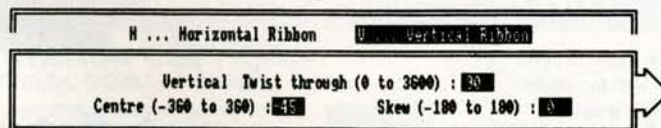
There are thousands of combinations that can be used with the Twist operation, but by now you should have some idea of the effect that each setting makes to the original image. It is worth sitting down with pen and paper to work out a particular effect, but you will learn a lot more by experimenting and noting down the result of certain settings.

## PRACTICAL EXERCISE 2 - TEARDROPS



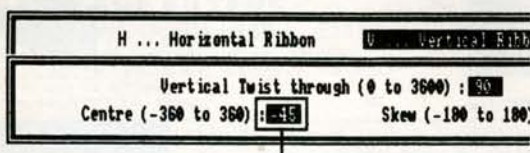
### STEP ONE - SETTING UP

The original design for this simple example was created in MicroDesign using the "Ellipse" Shape operation from the Design section. Once in medium thickness to create the outer shape and again at a slightly smaller size for the inner reflection. The unwanted section of the inner ellipse was "rubbed out" using the Paint operation with white ink and the remaining section Flooded with a "grey" pattern to soften its appearance. The letters were then added using the Write operation with the Bolden22 font from Extra Fonts Disc 2.



### STEP TWO - IMPORTING THE IMAGE INTO TWEAK

The next step in the operation is to boot-up Tweak and load the file TEARDROP.CUT by giving the name of the file at the load prompt. To create the "Teardrop" shape we need to pinch the top of the ellipse only. Therefore we need to use Tweak's Twist operation and position the design in the top half of a Vertical Ribbon by using the settings shown in the next diagram.



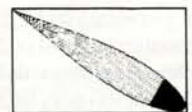
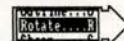
### STEP THREE

If you forget to set the Centre of the Twist at MINUS 45 degrees, you are probably looking at a design not unlike this!

## PRACTICAL EXERCISE 3.

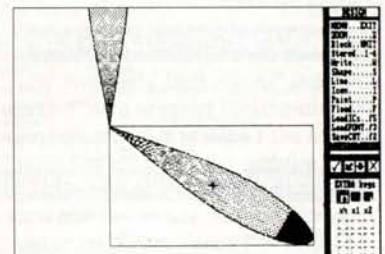
### STEP ONE

For the next example in this month's article, we shall create a propeller. Start by using MicroDesign's Design section to create a narrow vertical ellipse. A line is drawn across the ellipse to mark the position of the tip which is then flooded with black. The rest of the shape is flooded with a "grey" shade pattern. When completed, save this area as PROP1.CUT.



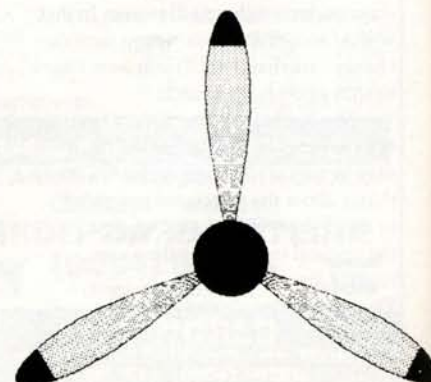
### STEP THREE

In this example, we want to create a three blade propeller. The first blade, PROP2.CUT, is finished, so we can move on to the second one. As there are 360 degrees in a circle, each of the three blades needs to be a third of the way around the circle. PROP2.CUT is assumed to be at zero degrees, so blade number two must be set at 120 degrees (a third of 360). To achieve this, use PROP2.CUT



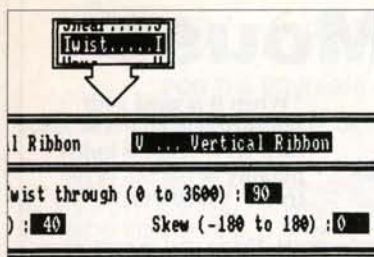
### STEP FOUR

To create the third and final blade, use PROP3.CUT and select Reflect "X" option. This time give the filename PROP4.CUT.



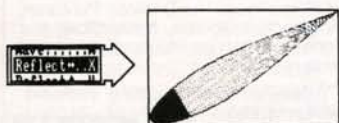


## A PROPELLER

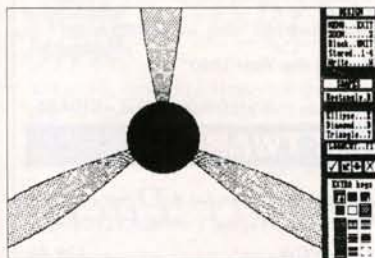


## STEP TWO

Load PROP1.CUT into Tweak. To create the first blade of the propeller we need to twist the blade vertically. To achieve this, select Twist on a vertical ribbon. As we want our blade to appear to have a half twist, set the degrees to 90. To pinch one end only, position the blade within the ribbon at a centre of 40 degrees. Save this blade as PROP2.CUT.



and Tweak's Rotate operation. Select 120 degrees and Superfine mode (you can use "Normal" for quickness but the results won't be as good!). When prompted give the name PROP3.CUT. When the rotate has finished, you will have some unwanted "white space" around the image. To reduce this select Resave/crop [Y] and re-enter the name PROP3.CUT. When asked if you wish to overwrite, type [Y] to confirm.



## STEP FIVE

The last part of the operation is to put the three blades together. Using MicroDesign's Design section, load PROP2.CUT, scroll down the page so that the "sharp end" of PROP2.CUT is still in view and load PROP3.CUT so that the top left corner lines up with the tip of PROP2.CUT. Repeat with PROP4.CUT. All that remains is to use the Circle Shape operation with pattern fill to create the propeller cone. The bottom (Icon) window is toggled off using [SHIFT]+[RELAY].

## STEP SIX

Exit to the Layout section and save the complete area as PROP3BLD.MDA. Try a 4 or 5 blade propeller - use PROP2.CUT and just remember to divide 360 by the number of blades to get the angle for the Rotate operation. When you have finished, you can then erase the files PROP1-4.CUT.

## PRACTICAL EXERCISE 4 - HAND HELD FAN

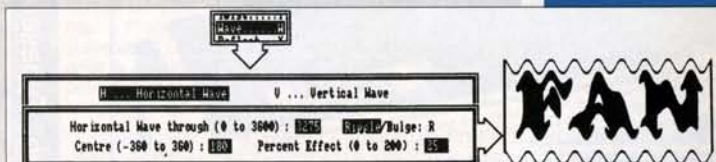
## STEP ONE - CREATING THE ORIGINAL IMAGE

For the third exercise we shall create a Hand Held Fan, using the MicroDesign and Tweak programs. The first stage is to create a large rectangle with medium line thickness, in MicroDesign's Design section. The size is up to you, but try to make the rectangle width approximately twice the height or the finished result is going to look rather strange. In our example, the letters FAN were added using the Bolden84 font from CT's Extra Fonts Disc 2. Save this to disc as FAN1.CUT

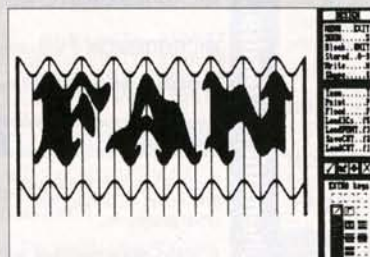


## STEP TWO - CREATING A WAVE PATTERN

Load FAN1.CUT into Tweak. To give a "concertina" effect to our fan we need to create a wave pattern along the top and bottom edges. To do this select Horizontal Wave (to wave the top and bottom edge) and Ripple, to keep the waves "in phase". The Wave angle is set to 3275 degrees to give us 9 and a bit waves (to ensure that the end waves reach their summit). 180 degrees is used to set the Centre in a "valley" with four and a half waves either side. Finally a Percent Effect of 25 is used to make each of the waves a quarter of the original rectangle height (100% equals full height).



Load FAN1.CUT into Tweak. To give a "concertina" effect to our fan we need to create a wave pattern along the top and bottom edges. To do this select Horizontal Wave (to wave the top and bottom edge) and Ripple, to keep the waves "in phase". The Wave angle is set to 3275 degrees to give us 9 and a bit waves (to ensure that the end waves reach their summit). 180 degrees is used to set the Centre in a "valley" with four and a half waves either side. Finally a Percent Effect of 25 is used to make each of the waves a quarter of the original rectangle height (100% equals full height).

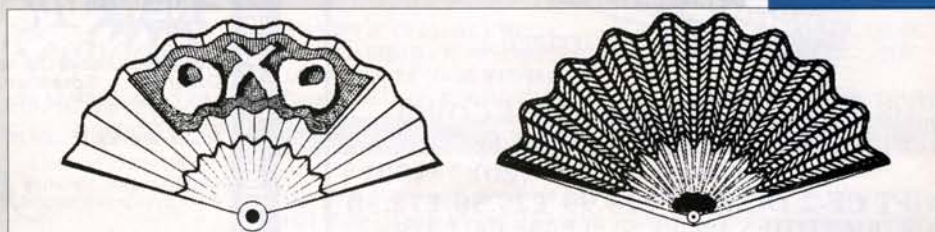
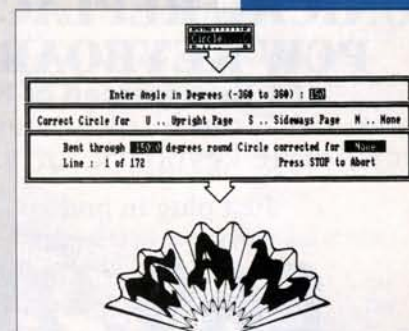


## STEP THREE - USING LINE

Load MicroDesign again and load FAN2.CUT into the Design section. Use the Line operation to add vertical lines joining the peaks and troughs, extending the lines a little way past the bottom as shown in diagram 13. Save to disc as FAN3.CUT.

## STEP FOUR - CREATING AN ARC

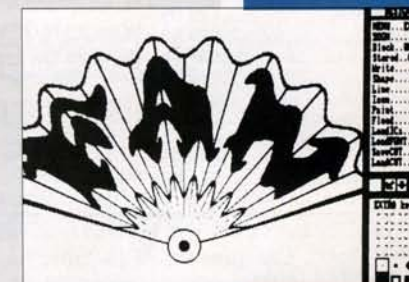
Load FAN3.CUT into Tweak. We now need to form the area into an arc, so we need Circle. As an arc is only part of a circle, we set the degrees to 150 (minus 150 will arc the fan upwards). You will then be prompted for circle correction which is necessary because of the non-square pixels on a PCW. Set this according to which page format you intend using to print from later. If you have ProSCAN and use the HIGH-Q printer driver, set this to None. This time save the image as FAN4.MDA (note - .MDA not .CUT - because if you started with a fairly large rectangle, it will not fit MicroDesign's Design window once Circled).



## STEP FIVE - FINISHING TOUCHES

The final part to creating the Hand Held Fan is to load FAN4.MDA into MicroDesign's Layout section and then move to the Design section.

Use the Shape and Line operations to join up and add a "hinge" to the bottom of the fan. When completed save to disc as HANDFAN.MDA. You can then erase the files FAN1-3.CUT and FAN4.MDA. Finally, using the same methods, here's some we did earlier!





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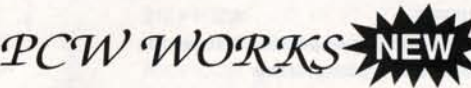
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# On the Move

*Most spreadsheets need much more space than that provided by a PCW screen or the space on an A4 sheet of paper. Tony Hart shows how large spreadsheets can be easily handled on screen or on paper*

		January		February		March	
		Exp	Act	Exp	Act	Exp	Act
Home	Mortgage	330.00	346.00	330.00	346.00	330.00	346.00
	Poll Tax	94.00	93.98	94.00	93.98	94.00	93.98
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	Insurance	0.00	0.00	190.00	186.40	0.00	0.00
	Gas	50.00	49.90	50.00	49.90	50.00	49.90
	Electricity	30.00	30.00	30.00	30.00	30.00	30.00
	Water	25.00	24.25	25.00	0.00	25.00	0.00
	Telephone	0.00	0.00	60.00	31.00	0.00	0.00
	Kitchen-loan	191.00	191.95	191.00	191.95	191.00	191.95
Car	Tax	55.00	55.00	0.00	0.00	0.00	0.00
	Insurance	11.48	10.75	11.48	10.75	11.48	10.75
	Servicing	20.00	41.40	20.00	0.00	20.00	0.00
	Petrol/Oil	15.00	55.45	15.00	33.00	15.00	11.00
Food	House	230.00	250.00	230.00	210.00	230.00	267.00
	School/Work	40.00	35.00	40.00	59.90	40.00	65.50
Appls	TV & Video	42.00	41.70	42.00	41.40	42.00	41.40
	Washer	0.00	16.11	16.11	16.11	16.11	16.11
Hols	Package	0.00	0.00	0.00	0.00	400.00	634.00
	Meals	0.00	0.00	0.00	0.00	0.00	0.00
	Fun	0.00	0.00	0.00	0.00	0.00	0.00
Fun	Out/Meals	25.00	34.45	25.00	0.00	25.00	13.19
	Books/Records	10.00	58.45	10.00	0.00	10.00	33.96
Sport	Golf fees	0.00	0.00	350.00	320.00	49.70	35.00
	Squash	5.00	5.00	5.00	6.00	7.00	5.00
	Golf gear	10.00	0.00	10.00	0.00	10.00	9.00
	Piano	130.00	142.00	66.00	58.87	66.00	58.87
Misc	Misc	6.00	136.95	20.00	48.74	100.00	69.72
	Hair/Eyes/Tsh	6.00	13.45	6.00	13.45	6.00	52.00
	Life Insurance	10.00	13.25	13.25	13.25	13.25	13.25
	Subscriptions	6.75	6.75	6.75	0.00	6.75	6.75
	Clothes	60.00	65.00	60.00	88.00	60.00	94.00
Totals	Totals	1427.23	1716.79	1941.59	1886.83	1873.29	2148.33
Income	John	1350.00	1350.00	1350.00	1200.00	1350.00	1345.00
	Marsha	421.00	603.53	421.00	515.21	421.00	478.17
	Other				92.28	0.00	30.00
Profit	Rolling Profit	343.77	236.74	(170.59)	(79.34)	(102.29)	(295.16)
		343.77	272.28	173.18	192.94	(272.88)	(102.22)

A full sheet printout occupies a few pages of A4 paper, plus an extra one for totals

The screens of most personal computers are fine for small spreadsheets, like working out your assets and debits, or projecting expenditure on specific items and even doing fairly complex

mathematical or statistical exercises.

However, many practical applications of spreadsheets, such as financial accounts, need much more space than Mini Office's 80x32 character screen, since this only provides about ten columns and 25 rows - the rest of the spreadsheet being 'off-screen'.

For example, a home accounts spreadsheet, like the one used for this article, is not very large at 50 rows and 33 columns but is still twice the size of a PCW screen. Compare the screenshot below with the printout beside it; the screenshot shows that part of the home accounts spreadsheet which can fit on the screen, whereas the printout shows the whole sheet.

The simplest way of moving around a large sheet is to use the four 'arrow' keys which take the cursor up, down, left or right. However, this does take time and, if you regularly use a large sheet, can be frustratingly slow.

Equally, if you need to print all or parts of a sheet, then the default print-out is not the ideal method to produce exactly what you need on paper.

There are several features provided in the Mini Office spreadsheet module which give quick movement around the sheet on-screen and provide for a printout of the relevant sections of a sheet. Let's have a look at some of them.

## METHOD ONE - DIRECT GOTO

Free space: 313097      Auto-update  
Cell B005 - String - Profit  
Enter cell tag name (3-13 letters)  
Contents : Poll Tax

		January		February	
		Exp	Act	Exp	Act
001	Home				
002	Mortgage	330.00	346.00	330.00	346.00
003	Poll Tax	94.00	93.98	94.00	93.98
004	Maintenance	25.00	0.00	25.00	38.13
005	Insurance	0.00	0.00	190.00	186.40
006	Gas	50.00	49.90	50.00	49.90
007	Electricity	30.00	30.00	30.00	30.00
008	Water	25.00	24.25	25.00	0.00
009	Telephone	0.00	0.00	60.00	31.00
010	Kitchen-loan	191.00	191.95	191.00	191.95

The top left hand area of the screen, showing the GOTO Tag function being carried out. All you do is to type in either the cell number, say Z56, or the cell name, say 'holiday total' and the cursor will go there automatically

The fastest method of moving to a specific cell or area in a large spreadsheet is to use the Direct GoTo command. You have two options. Firstly, to specify the cell you want to go to - e.g. C20 or, secondly to go to the name, or 'tag' of the cell. e.g. 'Car'. Both methods use the [ALT]/G GoTo function. Firstly, to go directly to a cell - let's say B33:

- \* [ALT]/G      GoTo function
- \* Type B33      The cell to go to
- \* [ENTER].      Do it!

The cursor will then move directly to that cell.

Secondly, to go to a named cell. In a large spreadsheet it's unlikely that you'll know the cell location of the values you wish to move to, so moving to a cell by giving it a name or 'tag' is almost certainly the best method.

Free space: 313097      Auto-update      Making file: B005 - 50%

Cell B005 - String - Profit

Contents : Poll Tax

		January		February		March	
		Exp	Act	Exp	Act	Exp	Act
Home	Mortgage	330.00	346.00	330.00	346.00	330.00	346.00
	Poll Tax	94.00	93.98	94.00	93.98	94.00	93.98
	Maintenance	25.00	0.00	25.00	38.13	25.00	0.00
	Insurance	0.00	0.00	190.00	186.40	0.00	0.00
	Gas	50.00	49.90	50.00	49.90	50.00	49.90
	Electricity	30.00	30.00	30.00	30.00	30.00	30.00
	Water	25.00	24.25	25.00	0.00	25.00	0.00
	Telephone	0.00	0.00	60.00	31.00	0.00	0.00
	Kitchen-loan	191.00	191.95	191.00	191.95	191.00	191.95
Car	Tax	55.00	55.00	0.00	0.00	0.00	0.00
	Insurance	11.48	10.75	11.48	10.75	11.48	10.75
	Servicing	20.00	41.40	20.00	0.00	20.00	0.00
	Petrol/Oil	15.00	55.45	15.00	33.00	15.00	11.00
Food	House	230.00	250.00	230.00	210.00	230.00	267.00
	School/Work	40.00	35.00	40.00	59.90	40.00	65.50
Appls	TV & Video	42.00	41.70	42.00	41.40	42.00	41.40
	Washer	0.00	16.11	16.11	16.11	16.11	16.11
Hols	Package	0.00	0.00	0.00	0.00	400.00	634.00
	Meals	0.00	0.00	0.00	0.00	0.00	0.00
	Fun	0.00	0.00	0.00	0.00	0.00	0.00
Fun	Out/Meals	25.00	34.45	25.00	0.00	25.00	13.19
	Books/Records	10.00	58.45	10.00	0.00	10.00	33.96
Sport	Golf fees	0.00	0.00	350.00	320.00	49.70	35.00
	Squash	5.00	5.00	5.00	6.00	7.00	5.00
	Golf gear	10.00	0.00	10.00	0.00	10.00	9.00
	Piano	130.00	142.00	66.00	58.87	66.00	58.87
Misc	Misc	6.00	136.95	20.00	48.74	100.00	69.72
	Hair/Eyes/Tsh	6.00	13.45	6.00	13.45	6.00	52.00
	Life Insurance	10.00	13.25	13.25	13.25	13.25	13.25
	Subscriptions	6.75	6.75	6.75	0.00	6.75	6.75
	Clothes	60.00	65.00	60.00	88.00	60.00	94.00
Totals	Totals	1427.23	1716.79	1941.59	1886.83	1873.29	2148.33
Income	John	1350.00	1350.00	1350.00	1200.00	1350.00	1345.00
	Marsha	421.00	603.53	421.00	515.21	421.00	478.17
	Other				92.28	0.00	30.00
Profit	Rolling Profit	343.77	236.74	(170.59)	(79.34)	(102.29)	(295.16)
		343.77	272.28	173.18	192.94	(272.88)	(102.22)

A home accounts spreadsheet will almost certainly be wider and deeper than the screen

## TIP OF THE MONTH

Large spreadsheets, such as house or business budgeting spreadsheets are often built up carefully over a twelve month period. The amount of detail which needs to be recorded is often quite phenomenal.

It is essential, therefore, that proper back-up routines are maintained.

Nothing can be more frustrating and time consuming than having to enter large amounts of data all over again.

The message is, always ensure that you make regular back up copies of your spreadsheet to protect yourself against the loss of data through faulty discs, faulty disc drives, wear and tear, or carelessness at the keyboard!

Before you can do this you have to tag the cell with the relevant name using the [ALT]/T function. Let's say that you wanted to tag the cell 'House' in this home accounts spreadsheet.

The sensible thing to do is to make the tag the same as the actual text string, as follows:

- \* Cursor to cell 'House'
- The cell to be 'tagged'.
- \* [ALT]/T      The tag function
- \* Type 'House'      Name the cell
- \* [ENTER]      Do it!

Now to move to that cell from anywhere in the spreadsheet:-

- \* [ALT]/G
- \* Type 'House'
- \* [ENTER]

Our screenshot shows the "GOTO Tag" command being carried out.



## METHOD TWO - BIG JUMPS

Probably half of the cursor moves made while using a spreadsheet are to either check totals, in the bottom rows or right hand columns, or check your position in the large sheet by looking at the top row and left column. These are the 'edges' and 'corners' of the sheet. The fastest way of moving around a large sheet is to use the commands that take the cursor immediately to these locations. These are:

- \* [SP.CHK] and [ALT]/[SP.CHK] to take the cursor to the top-left (Home) and bottom-right cells respectively. The bottom right hand cell is typically where a grand total would be stored for a budgetary spreadsheet. The top left cell is where you could keep an important action, like the last back-up or print out date.
- \* [PARA] and [UNIT] go to the bottom and top cell of the current column.
- \* [EOL] and [LINE] move the cursor to the end and beginning of the current row.

### WINDOWS

Windows are an easy way of breaking up, or condensing, a spreadsheet into sections (windows) for ease of display and printing. The ideal windowing on the home accounts spreadsheet used in the example, is to

break it up into three-month or quarterly windows. For example, to create Window 1 for the first three months, do the following:-

- \* [SP.CHK] Home the cursor
- \* [DOC] Select Window 1
- \* [F8] Select window rows

You'll now be prompted to select the required rows for the window (see the screenshot on the left).

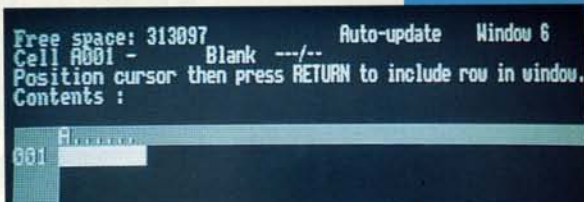
\* Hit [RETURN] followed by the down arrow until all the relevant rows have been included.

- \* [F8] complete row selection
- \* [F6] Select window columns

Now hit [RETURN] followed by the right arrow until all the relevant columns from 'Jan' to 'Mar' have been included in the window.

\* [F6] completes column selection.

Windows are then selected using the [DOC], or [SHIFT]/[PAGE] key. So, from the normal spreadsheet, [DOC] will display window 1, [DOC] again will display window 2, (see the right hand screenshot) and so on, until window 7 when the cycle will start again.



Above: Here, the user is being asked to select the required rows for the window being created. Below: Window 2 selected with [DOC]

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Act
Home														
Mortgage	330.00	345.00	330.00	337.00	330.00	337.00	330.00	337.00	330.00	337.00	330.00	337.00	330.00	337.00
Poll Tax	94.00	102.74	94.00	102.74	94.00	102.74	94.00	102.74	94.00	102.74	94.00	102.74	94.00	102.74
Maintenance	25.00	4.25	25.00	18.78	25.00	294.52	25.00	294.52	25.00	294.52	25.00	294.52	25.00	294.52
Insurance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gas	30.00	45.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Electricity	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Water	25.00	25.55	25.00	25.55	25.00	25.55	25.00	25.55	25.00	25.55	25.00	25.55	25.00	25.55
Telephone	0.00	0.00	0.00	42.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Kitchen-loan	191.00	191.55	191.00	191.55	191.00	191.55	191.00	191.55	191.00	191.55	191.00	191.55	191.00	191.55
Car														
Tax	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Insurance	11.48	10.75	11.48	10.75	11.48	10.75	11.48	10.75	11.48	10.75	11.48	10.75	11.48	10.75
Servicing	20.00	0.00	20.00	0.00	20.00	0.00	20.00	0.00	20.00	0.00	20.00	0.00	20.00	0.00
Petrol/Oil	25.00	0.00	25.00	53.10	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Food														
House	300.00	272.00	254.00	238.00	238.00	238.00	238.00	238.00	238.00	238.00	238.00	238.00	238.00	238.00
School/Work	40.00	39.50	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
Apples														
TV & Video	42.00	41.40	42.00	41.40	42.00	41.40	42.00	41.40	42.00	41.40	42.00	41.40	42.00	41.40
Washer	16.11	16.11	23.00	26.21	23.00	26.21	23.00	26.21	23.00	26.21	23.00	26.21	23.00	26.21
Hols														
Package	0.00	0.00	750.00	760.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## FIXING THE HEADERS IN WINDOWS

Another problem with large spreadsheets is that when you access an area away from the top left side of the sheet then you lose a view of the row and column headers. As you might expect, Mini Office has a very useful feature that helps you to overcome this - namely the 'Fixed headers' function. When fixed headers are set, then no matter where you jump, scroll or move through the sheet, the top row



left column will stay fixed to the screen. To put fixed headers in operation do the following: Select 'Alter spreadsheet' from the main menu; select 'windows' from the 'Alter spreadsheet' menu; select 'fixed headers' from this menu then use the [ENTER] key to choose whether you want both column and row headers fixed, or either one, or none at all. Press [EXIT] twice to go back to the main menu.

## FINISHING TOUCHES - PRINTING

Once a spreadsheet has been created and is in regular use, it is unlikely that you'll want to print it off more than once per week - and perhaps more typically, once per month.

However, in the case of a large spreadsheet (for example, one that is not just larger than a PCW screen, but is also much larger than a single A4 page) then a more organised approach to printing is required.

If you simply print a large spreadsheet without making any changes to the default printer settings, then you'll get a number of 80 column sheets printed until the final column and row are done. With this method, it will not be easy to interpret the values and totals.

### Printing windows

For the larger spreadsheet, Mini Office's 'Print window' feature is ideal.

With this command you can output any of the previously selected windows direct to the printer as a single spreadsheet. Thus, for the home accounts spreadsheet, you could have four separate

sheets printed for the four separate quarters of the year. You could have a separate page for all four quarterly totals, plus an annual result.

If you wished to print just the first quarter's results, e.g. Window 1 (as shown in the printout), do the following:

- \* Press [DOC] until Window 1 is displayed.
- \* Select the 'Print spreadsheet' option from the spreadsheet menu. [ENTER]
- \* Select the 'Print window' option from this list and you'll be informed which window will be printed. (It is always the window which you currently have selected on the spreadsheet).
- \* 'P' to print the window

Note that for users with dot matrix printers, there are optional print types available, such as NLQ (Near Letter Quality), draft and condensed.

Window 1, the first calendar quarter of the home accounts spreadsheet, has been selected and then printed out

		Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Year	Year
		Exp	Act	Exp	Act	Exp	Act
Home	Mortgage	1038.00	1120.00	1161.00	1161.00	3960.00	4480.00
	Poll Tax	281.94	308.22	308.22	308.22	1152.00	1206.60
	Maintenance	38.13	267.59	207.50	377.89	350.00	891.11
	Insurance	186.40	0.00	19.80	19.80	229.60	226.00
	Gas	149.70	146.80	152.70	185.70	660.00	634.90
	Electricity	90.00	90.00	112.00	123.00	360.00	415.00
	Water	24.25	75.95	79.95	79.95	300.00	264.10
	Telephone	31.00	42.22	43.32	66.19	240.00	182.73
	Kitchen-loan	575.85	575.85	575.85	1586.40	2235.56	3313.95
Car							
	Tax	0.00	0.00	6.58	68.12	5.00	74.70
	Insurance	55.00	0.00	55.00	0.00	110.00	110.00
	Servicing	32.25	32.25	32.25	34.95	137.76	131.70
	Petrol/Oil	41.40	20.00	198.63	127.83	240.00	387.86
		99.45	63.10	64.00	65.25	270.00	291.80
Food							
	House	727.00	760.00	710.00	870.99	2854.00	3067.99
	School/Work	160.40	139.00	85.00	90.00	500.00	474.40
Apples							
	TV & Video	124.50	124.20	124.20	146.15	496.00	519.05
	Washer	48.33	58.43	48.11	14.10	162.43	168.97
Hols							
	Package	634.00	760.00	850.00	58.00	1210.00	2302.00
	Meals	0.00	0.00	36.23	45.03	400.00	81.26
	Fun	0.00	19.54	126.98	0.00	575.00	146.52
Fun							
	Out/Meals	47.64	123.44	235.26	264.61	375.00	670.95
	Books/Records	92.41	28.80	82.55	38.00	120.00	241.76
Sport							
	Golf fees	355.00	105.00	35.00	0.00	539.70	495.00
	Squash	16.00	59.00	0.00	0.00	73.00	75.00
	Golf gear	9.00	41.81	94.45	108.10	138.00	253.36
	Piano	259.74	187.71	160.61	128.61	718.00	736.67
Misc							
	Misc	255.41	387.51	50.50	151.71	816.00	845.13
	Hair/Eyes/Tth	78.90	82.37	103.83	177.06	238.00	442.16
	Life Insurance	39.75	39.75	44.25	44.25	160.25	168.00
	Subscriptions	13.50	13.50	13.50	18.50	81.00	59.00
	Clothes	247.00	290.00	431.33	348.80	1040.00	1317.13
Totals	Totals	5751.95	5966.04	6248.60	6708.21	20746.30	24674.80
Income							
	John	3895.00	4229.00	3865.00	4391.65	16200.00	16493.00
	Marsha	1596.91	1605.66	1635.30	2172.09	5831.00	7066.84
	Other	122.28	113.00	118.00	224.99	0.00	578.27
Profit							
	Rolling Profit	(137.76)	(18.38)	(630.30)	80.52	1284.70	(536.69)



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9512 Colours	F	4.30	4.09	3.87
9512	MS	2.95	2.80	2.66
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DMP4000	F	4.70	4.47	4.23
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Commodore MPS801	F	3.34	3.17	3.01
Commodore MPS1230	F	3.43	3.26	3.09
Epson MX/RX/FX100	F	3.95	3.75	3.56
Epson LX80/86	F	2.47	2.35	2.20
Epson FX/MX/RX80	F	3.44	3.27	3.10
Epson LQ800/400/500	F	3.64	3.46	3.28
Epson LX400/800	F	3.44	3.27	3.10
Epson LQ2550	F	5.30	5.04	4.77
H.Packard D/Jet Cart		14.80	14.43	14.06
NEC P2200/P2+	F	4.95	4.70	4.46
NEC P6+/P7+	F	5.34	5.07	4.81
Olivetti DM100/200	F	3.43	3.26	3.09
Panasonic KXP1080-83				
1090-92, 1124, 1180-90	F	4.00	3.80	3.60
Panasonic KXP1524-40	F	6.90	6.56	5.21
Seikosha SP1200	F	3.44	3.27	3.10
Star LC10	F	3.44	3.08	2.92
Star LC200	F	3.44	3.08	2.92
Star LC24-10/24-200	F	3.50	3.33	3.15
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5.25" DSDD KAO brand	0.65	0.59	0.51
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80GSM (M)	2000	18.25	16.13	15.55
90GSM (M)	1000	14.33	11.71	11.18
2 Part NCR	1000	20.18	18.06	17.48

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70GSM (M)	2000	18.65	16.53	15.95
80GSM (M)	2000	19.85	17.73	17.15
90GSM (M)	1000	14.97	12.35	11.77
2 Part NCR	1000	29.30	27.18	26.60

11 x 14.5

60GSM	2000	20.05	18.24	17.45
70GSM	2000	21.75	19.94	19.25
2 Part NCR	1000	26.18	25.37	23.78

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3 1/2 x 1 7/16	5.64	4.56	3.87	
3 1/2 x 1 15/16	8.18	6.00	5.44	
4 x 15/16	5.34	3.49	3.10	
4 x 1 7/16	6.39	4.50	4.05	
4 x 1 15/16	8.19	6.05	5.47	

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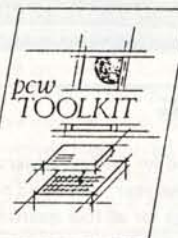
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## Hints &amp; Tips

● Step 1: The keyboard contains a number of small items, such as keys, springs, key stems and screws. It is worth marking up a large piece of paper in order not to get them mixed up or lost. Assign a section to each group of components.

● Step 2: There are far more holes on the board than there are screws. Because of this, it is easy to get confused about which holes the screws should go back into. An easy answer – mark the ones which contain screws with an arrow!

● Step 3: The cable is one of those parts of the unit which collects a large amount of grime. Don't forget, then, to give it a good clean – the dirt seems to get deeply ingrained – using the cleaning fluid and a cloth.

● Step 5a: We found the best way to remove each keytop was to slip the tip of one finger under one of the top corners of the key, and lever it out. Some of them are rather tough, though, and may need a bit of gentle persuasion.

● Step 5b: If the keys get out of order as you pull them off, don't worry. Simply find a picture of the keyboard (there are a couple in advertisements in this issue).

# Clean Teqniche

*Martin Le Poidevin shows you how to keep one of the best of the PCW add-ons – the Teqniche keyboard – in tip top condition*

**T**he Teqniche keyboard received a rare accolade in its 8000 Plus review – a mark of 19 out of 20. It is an essential tool for many PCW owners. And like all tools it needs looking after.

A little time spent every few months can save much frustration – not to mention the expense of a new keyboard. The equipment you will need is quite

simple. Firstly, a Philips cross-head screwdriver. The one we found best was a 3mm 'watch-maker's' screwdriver, as this fits the screw-heads of the small circuit board screws without causing any problems (see step 2).

You will also need some cleaning fluid (cigarette lighter fluid also proved excellent), some cotton buds and a cloth for the more stubborn stains. It would

also be worth having a soft pencil handy.

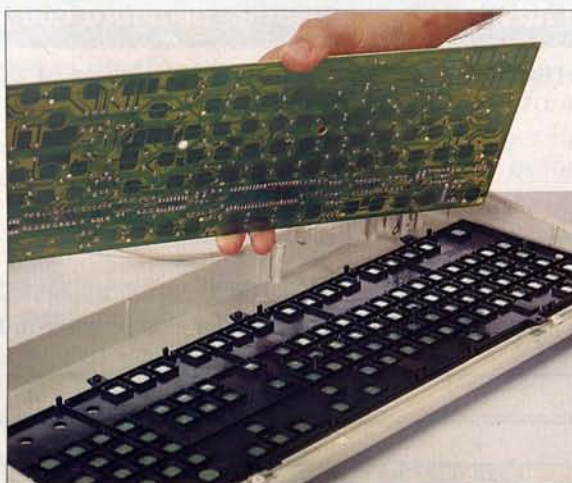
A couple of words of caution before you leap in, though – firstly, check your warranty arrangements carefully, and ensure that opening the keyboard will not invalidate them; secondly, since your keyboard is quite new, don't be tempted to open it too often – some of the components are fragile, and won't appreciate such intense attention!



**1** Make sure that you have plenty of space to work in. Unplug the keyboard from the computer, and move the computer out of the way – simply to make more room. Locate and remove the five screws which hold the black metal backing plate onto the unit. Put the screws together on one side. Remove the backing plate, clean it thoroughly, and put that to one side as well.



**2** You are now looking at a large circuit board. It is attached to the rest of the unit by several small screws, each of which is marked by either a circle or triangle. Remove these and put them to one side; then undo the clips at the top and bottom of the board. It is best to do these one edge at a time – bottom, then top – and to work along from left to right.



**3** You can now lift the circuit board out of the unit. Because of the three indicator light bulbs, you should lift it as vertically as possible, for the first half inch or so at least. The keyboard output wire will come away, too – so make sure that it is free to do so. As with all circuit boards, handle it as little as possible, and then only by the edges. Blow off any dust that has collected.



**4** Put the circuit board to one side – perhaps on some foam, and with the green side facing up. You will now be looking at the underneath of the keys themselves. The keys are attached to a black plastic holding board. This can be taken out – simply undo the five screws which hold it, and put them safely aside. Lift the black unit out, and give the upper casing a thorough

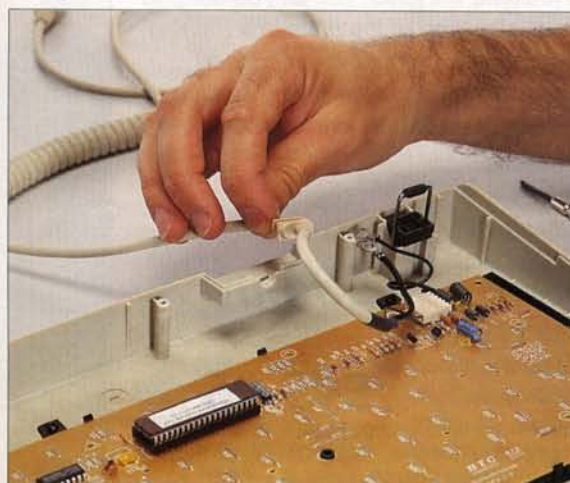




**5** Now remove all the keys. Turn the unit over, so that the keys are facing you, and simply pull the top off each one. As each key top comes away, it will leave behind a plastic keypad (often several keys share the same one) and, underneath the black holding board, a pink stem, with foam and a metal foil contact on the bottom. Rescue these, and put them alongside the casing in keyboard order. Some keys also have a metal clip.



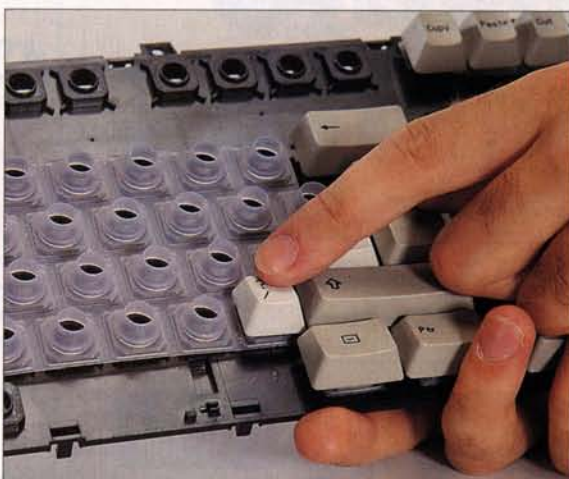
**7** Putting the keyboard back together is the reverse of taking it apart, but much easier! Begin by refitting the keys which have metal springs. First, put the pink key stem underneath the board, then put the plastic keypad over the top. Now fit the bar of the metal spring into its slots on the board, and put the two ends into the slots on the keytop. Push the key home.



**9** When all the keys are back in their keyboard positions, you can screw the re-constructed unit back into the upper casing. Now return to the circuit board, and very carefully manoeuvre that back into position, guiding the light fittings into their slots. Align the screw holes, push the board back into the clips, and refit the screws. Slot the output wire into place.



**6** You can now go about cleaning the individual keys. Do this using the cotton buds and the cleaning fluid – any grime which has become ingrained will miraculously lift off. Blow or brush any dust off the plastic key pads, and give the black holding board a good clean, too – this is where most of the larger particles of rubbish will have been caught. When you have finished, leave everything to dry thoroughly.



**8** The other keys are refitted in exactly the same manner, but omit the spring-fitting process. For these, make sure that the pink key stem is underneath the board, poking through the hole that will take the key. Position the plastic keypad correctly (it may already be in place if another key shares it). With a finger supporting the key stem underneath, click the keytop home.



**10** Finally, refit the black metal backing plate. The first screw you should do up is the one at the top right of the unit. Make sure that the screw passes through both the ring connectors which come from the output wire and the circuit board, before tightening it up. You can now fit the other screws back into place and plug the keyboard back into the computer.

## Hints & Tips

- Step 6: It is worth taking a long time over the cleaning. Quite apart from anything else, it should ensure that you don't have to open up the keyboard again for a long time!

- Step 7a: If you wish, you can also add a squirt of switch lubricant around each of the pink key stems after you have put them back into the board. Use the tube which comes with the canister to direct the spray, letting it flow around the stem. Make sure it does not go where you do not intend it to – for instance, on to the foam part of the keystem, and wipe any excess away with a cotton bud.

- Step 7b: Keep the finger under the key as flat as possible when you are doing this – to avoid bending the silver contact foil.

- Step 8: Because the keys go in close together, it is best to follow a pattern in putting them back. Our suggestion: start in the bottom right hand corner, and work up and across the keyboard.

- Step 10: Making sure that the screw traps both the ring connectors can be very tricky. The way to ensure success, though, is to first put the screw through the backing plate, then thread the connectors onto the screw. Finally, position the screw over its hole and do it up.



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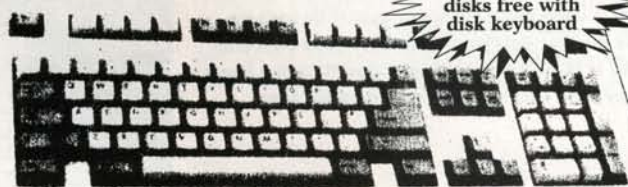
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One by-product of the 1991 silly season was a spate of circulars, many recognisably

LocoScripted on the ubiquitous PCW. I suppose there's no way to prevent nutters and con-artists from buying word processors, just like the supremely law-abiding readers of this magazine....

The most irritating item was a long tract offering a very expensive book on how to cheat. Its amazing technique of "neocheating" would enable you to win at cards, rip off friends and business associates, and rule the world — all in a completely safe and undetectable way. Of course, the brochure adds, you don't *have* to cheat at cards. The idea is to attain inner tranquillity. Being able to steal your neighbours blind will be a mere side-effect of your new powers.

(Remember those old martial-arts adverts? "After ONLY THREE LESSONS you will be able to WRENCH OUT PEOPLE'S INTERNAL ORGANS and REDUCE THEM EFFORTLESSLY to a BLOODY PULP. Your new-found ability to MAIM, HURT and KILL should be used only in self-defence....")

A more familiar arrival was a posh, word-processed version of that old standby, the chain letter. I thought they'd died out years ago. Ah, the schoolday nostalgia of sending a nice picture postcard to the top name of the six listed, plus four plain cards to friends with an exhortation to do likewise and not break the chain. Then you waited for the glorious bounty promised by the logic of mathematics when your name rose to the top: 4 to the power of 6 or 4,096 cards, from exotic places all over the world!

### The bottom line

Today's chains have progressed beyond the simple innocence of long ago. The example I received is full of claims that this is not a chain letter but that entirely different and legal thing, a Multi Level Mail Order Sales offer. The currency unit is no longer the humble postcard but the used £5 note. (No cheques.)

Now, when you send fivers to the previous names on the traditional list, you are supposedly buying four valuable "financial and business reports". Since these consist of at most two sides of paper, you can imagine how expensive they are to produce, and how crammed they must be with vital data.

But it's unnecessary for you to read these ludicrous texts. All you do is pay a fiver apiece for the things, and photocopy them for sale to the further suckers whom you yourself are expected to rope in. "It is legal because you are offering a legitimate product to your investors." See? In due course, as the circle of golden opportunity expands exactly like a chain letter ("imagine if everyone sent out 1,000 letter packets!"), you in turn are promised tons of fivers.

There's something slimy and repellent about the several sheets of "don't miss this great chance" evangelism which landed on my doormat. Naff testimonials from

supposed past operators of the scheme are included: why do they all quote vast profits in pounds but write suspiciously like Americans? Any guesses as to where this con originated?

Let me make some obvious comments. The first concerns a testimonial from the "originator of this plan", who is letting others into it out of sheer benevolence, having himself retired long since on claimed profits of over £4,000,000. Stop and think. If we're to believe him, every penny of that sum must have come from hopeful "investors" who paid £20 for four joke reports at a fiver each. Gosh, there must already be *two hundred thousand people* on this game! If each sends 1,000 further packages as recommended, there are two hundred *million* in circulation already. A bit late for anyone else to jump aboard....

All right, most of the build-up is a pack of lies. My second comment is for people who think a bit further and argue: "Yes, it's a scam. But if this one is just starting, I could get in now and make a quick profit before it falls apart." Possibly. But the law of conservation of mass/energy applies to money. Whether the chain letter dies out by expanding to swamp the world or by deserved shrinkage as people chuck the thing in the bin, each fiver you make is sooner or later balanced by the "investment" of somebody who won't get it back ... someone, perhaps, who believed in this nonsense as a genuine business opportunity, and can ill afford even small losses. The mere fact that you're unlikely to meet these victims of the con is no excuse.

A final cheeky thought. When I mentioned conservation laws, I didn't take into account the fact that real-world systems leak money at the seams. Just so here: all that photocopying or Loco printing, all those envelopes and (the letter insists) *first-class* stamps. Elementary, Watson: the originator of this game must be the one outfit which makes money from it no matter what ... the Post Office!

### Bigger games

Over in the wonderful USA, everything is bigger and better, and this kind of scheme can be played for high stakes. One that's caused much trouble in recent years is the Aeroplane Game ... or rather, because they're Americans and don't know any better, the Airplane Game.

This is a plain (sorry) and simple pyramid scheme. I don't care to give full details, but typically the suckers join an imaginary flight as a "passenger" for \$1,500, and by recruiting new victims rise through the ranks of "flight attendant" and "co-pilot" until they reach "pilot" and receive \$12,000. For this to happen, 64 more people must have signed on at \$1,500, each needing to recruit 64 more before *they* collect ... and so on. Since several times the world's population will soon need to join and pay, a rude crash-landing awaits overwhelmingly many of these clowns. Am I just repeating myself? The creepy



# Citizen Chain

*Dave Langford casts a watchful eye over the rising popularity of postal con campaigns*

aspect of the American swindle was how it raged through the unworldly communities of what is called the New Age movement. That it was crass, immoral and doomed was evident to anyone who chose to think hard for a moment: but the open-minded suckers swarmed aboard, dazzled by "spiritual" jargon about "infinity processes" and "abundance workshops" which promised that free money could be spun out of nothing, forever.

After all, the sceptics who rudely told them the harsh facts of mathematics had been equally disrespectful about vital New Age concepts like astral channelling and reincarnation. Who would listen to horrid people like that? Who indeed.

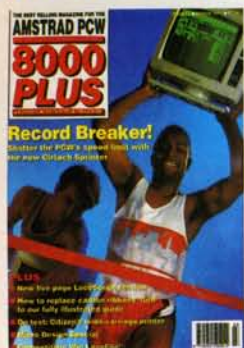
Usually this page talks about writing. This time we've sneaked around to it from behind: as George Orwell said again and again, to write clearly you must first think clearly. Myself, I'm every bit as lazy and greedy as the next PCW owner, but I have learned to stop and think about certain things. Writing is one ("did I really mean to say *that*?"). Get-rich-quick schemes are another. ●



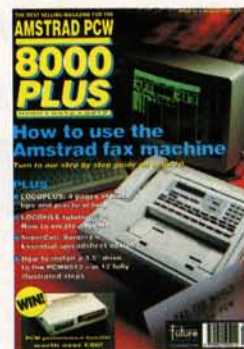
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8+/MAG/1191



# Words of a Feather

*With the new PcWs hitting the scene of late, you might think that the early, traditional role of the PCW as a word processor has been left by the wayside. Not so. Tim Smith looks at three text tweaking systems*

## Did you know?

For anyone who has never it tried out, CP/M is the PCW's operating system. Unlike LocoScript, CP/M needs to be built in to programs like Protext or Newword for them to be self-booting. Fortunately, in most cases, this usually happens. CP/M is supplied as standard with your PCW, and is a program in its own right.

**P**ersonal Computer Word-processor. That's what PCW actually stands for. You might think that this meaning has become lost beneath the hundreds of other programs available for the versatile machine. And anyway the PCW comes bundled with a more than adequate word processor in the form of LocoScript. So why would you need another?

Essentially you don't. You could quite happily stay with LocoScript and the associated Loco family of programs, for the rest of your PCWing days. But you should never forget that there are other programs out there to be used.

Many of them serve different purposes. They are less often complex and less authoritative in their structure. But this can mean, and often does, that they are quicker in use.

## The right type

Word processing sounds like a very grand term for what is essentially getting words down on a page. Surely it is simply a case of glorified typing?

Not so. How many type writers do you know which can align your text for you? How many can spell check your documents for you? And how many will

allow you to move areas of text around a document? Unless they are incredibly advanced machines, probably costing more than your humble PCW in the first place, the answer to all these questions is likely to be none.

A piece of word processing software should make the act of getting the words on to the page as unlaboured as possible. It should almost be like jotting down your prose on the back of a matchbook and then being given the ability to tidy them up for professional results.

## Don't panic!

Don't think, for one moment, that you have to change word processors from LocoScript. Just because there are others on the market does not mean that you have to use them. Especially as a beginner it is a good idea to get to grips with LocoScript. If nothing else it is free.

But it should be born in mind that different word processors, like different makes of car, have different and distinct advantages. For example you wouldn't use a Land Rover at the Brazilian grand prix, or use a Porsche to haul silage over heavy ground.

Using Tasword for example, would be ideal when jotting letters to friends,

creating lists, writing outlines for reports. This article was written with Protext because of the speed of operation and the fact that no frills were needed. Newword would be ideal for someone who uses a PC with WordStar at work.

However if you wanted to produce a really smart looking document for professional presentation, then LocoScript is probably still the best one for that purpose.

The best questions to ask yourself, when starting out with word processing, are as follows: Do I need speed? Do I need to create 'good looking' documents or just get my words written? Do I need to be helped along the way by on-line help? Am I going to use this system everyday or just occasionally?

The answers to these questions will define the system you need.

All three of the word processors examined here come with their own positive points. None of them use pull down menus, and you have to pay out additional funds for them unlike LocoScript which comes with the machine. So the most important question, which is why it has been left until last, is: Do I need another word processor? The answer is probably yes.

## WHAT TO LOOK FOR IN A WORD PROCESSOR FOR YOUR MACHINE

There was a time once when a piece of word processing software comprised little more than a place to put words and save them to text files. In fact you can still find these, or even write one yourself using Mallard BASIC.

However, in this more advanced age you should be aware that there are several functions which are basic to this form of software. A brief list of these is given below.

**FIND/REPLACE:** This will become more and more useful the more that you use it. For example, if you are working with a colleague or friend who uses a different type of computer, a PC perhaps, which can produce ASCII (American Standard Code for Information Interchange) files you will need to remove a number of the special characters placed into the file before you can work on it. This is where FIND/REPLACE - which is sometimes called FIND/EXCHANGE comes in more than useful. Simply type in the

character(s) you wish to remove in one box, and do the same with those you wish to put in their place in the next box and the machine will tidy up the file for you.

**BLOCKS:** One of the main features which sets word processing apart from simple typing is the ability to move sections of text around freely. It is more than likely that you will, at one time or another, have produced a document most of which you then find to be of little use. However you might want to use one section - say a list of names or a particularly well turned phrase - in another document. The ability to save it as a block separate to the main file is more than a luxury here.

**ON-LINE HELP:** Yes. Help. On many decent word processors there are options for on-line help. This means that you can get aid in your task of creating great works while not having to leave the keyboard and go and look in the manual. On-line help tends to be less detailed than

what you find in the manual but it certainly makes the working process easier to get to grips with.

**MAKE ASCII:** The ASCII file is one of the most important of all file types to the PCW user - even if most PCW users don't know it. Every word processor, in fact every different type of machine, creates its own type of document. It adds certain special characters to the header of the file for example. If you wish to transfer files from one machine to another, or from one program to another, you have to make an intermediary file.

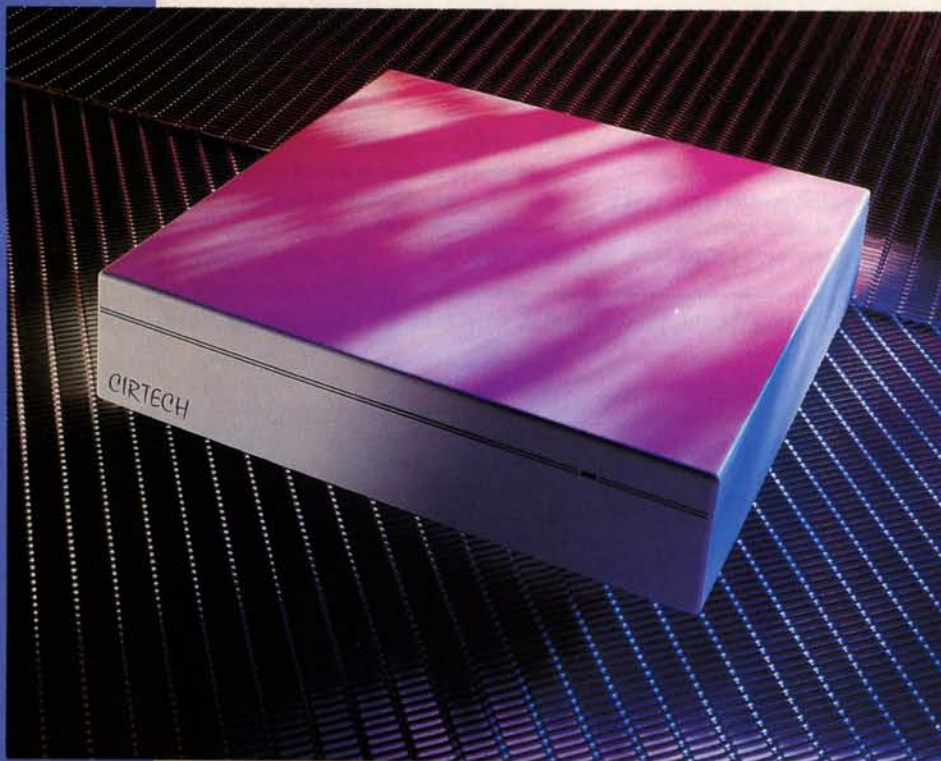
This is where ASCII comes in. It is, if you like, the computer Esperanto - a common language all computer's understand. The file leaves out any bolds and italics you added to your text, but the raw words are still there. Don't worry about having to strip the special codes yourself. Any program which creates ASCII files does this for you.

**BOLDS, ITALICS ETC:** A word









# Little Gem

*It's small, it's compact, and it costs just under £200. Too good to be true? Alec Rae puts the Cirtech Gem hard disc through its paces*

## Flipper flop

Generally the Cirtech Gem seems to be compatible with most CP/M programs. The only one where we found problems was with Flipper, the Software Imperative utility that can divide your working memory into two or more environments. Like the Cirtech technology Flipper works at a very low level on the hardware and the two systems just don't get on.

If there is one piece of equipment that can transform a PCW into a powerful business tool it has to be a hard disc. Not only does it allow you to have all your programs and files easily accessible (without all that tedious changing discs) it also effectively increases the speed of the PCW making it easily competitive with its IBM compatible big brothers.

So why doesn't everyone have a hard disc? The one major problem has been that traditionally hard discs have cost more than the PCW. Now far be it from us to suggest that saying that PCW owners are penny pinching, but the very fact that someone has chosen Amstrad's finest machine often denotes a certain interest in economy.

So when Cirtech come along with a 20 megabyte hard disc that costs a mere £199 plus VAT (or a 40 meg hard disc at £299 plus VAT) the PCW world has to sit up and take notice.

Having been around PCWs for a while now Cirtech have also come up with most of the answers. For instance you can use LocoScript 2 or CP/M with comparative ease. When you set up the hard disc for the first time you can choose whether it will automatically load LocoScript 2 or CP/M when you start up.

If you have opted for LocoScript as the default and you want to use CP/M all you need to do is hold down the [ALT] key when you switch on the PCW and you will get the alternative setup.

## No fuss set-up

The Cirtech Gem also appears to be able to handle all the Loco products and most CP/M software without a hitch and it can be set up with the minimum of fuss and with the minimum of technical know-how. While earlier hard discs came complete with complex software to format the hard disc and divide into one of 27 different configurations of logical drives, with the Cirtech Gem you can virtually plug it in and start using it.

Because Cirtech use what is called an intelligent hard disc, there is no need to format the disc at any time. Formatting of old style hard discs was needed to discover where any bad sectors were and was used to make sure that no data was placed on these areas.

The new style discs work out automatically where the bad sectors are and takes the appropriate steps without you knowing anything about it. Because of the intrinsic dangers of low level formatting (like the loss of a life's work

of data for instance) Cirtech have been quite happy to omit this.

## "I'll ask this only once..."

The Gem comes with a special version of the CP/M startup file and a supremely simple 'first-time' set up procedure that could have you using your new hard disc in minutes.

The company have also included some software including a simple file manager, a useful file copying program and a back-up utility - all features that can help the newcomer get used to problems of organising a 20 or 40 megabyte disc.

And refreshingly, the Cirtech Gem comes with the absolute minimum of documentation. All that comes with the equipment is enough text to cover an A4 sheet. This might sound a bit nerve-racking until you discover that Cirtech have done the sensible thing and put all the documentation on a special Help utility on the hard disc. To find out what to do next, you simply call up Gemhelp and read the instructions off the screen.

This really is a sensible course of action for a hard disc manufacturer. Even the biggest, glossiest manual can get lost. You shouldn't ever lose a program on your hard disc.

And manuals often seem to be created in a way that assumes the user will sit down and read the entire book before they set their hot little hands on the equipment. The reality is that a new user usually reads the first two paragraphs and then starts tinkering away until they get stuck. With this package you get no more than the installation instructions on paper.

Once running, you can call up specific details on screen on everything from how to set passwords for files to what information to have ready if you have to contact the distributors. This is probably the ideal way to learn.

## Breaking the speed limit

On one screen that you can call up it tells you, rather grandly, that the track to track access time is eight milliseconds, the average access time is 28 milliseconds and the minimum data transfer rate is 152,380 bytes per second. What this means in English is that it is a lot faster to load or save files on a Gem than it is on a floppy disc. If you are one of those people who spend the first 10 minutes of every PCW session loading your favourite programs in the M drive, you will understand when we say that accessing a file on the Gem is almost as fast as accessing a file in M drive.

This is actually more important than you think in speeding up your work on a PCW. There is often more time wasted getting information on to and off of a disc than there is waiting for the computer to work something out.

Programs that are too big to fit into the working memory of the PCW are broken down into sections which are loaded as they are needed. This process is obviously greatly increased by having



a hard disc (just look at the time trials chart over the page to get some idea of how speeds are increased).

## What? No screen stand?

If one criticism can be levelled at Gem, it must be that it is quite tiny compared with many of the early hard discs. In the old days they were all big enough to act as a screen stand, lifting your monitor to a more convenient height.

This you cannot do with Gem and you therefore have to store it alongside the PCW - taking up what could be valuable desk space. It also doesn't have a particularly long electric cable which could restrict where you place it. And, compared to the brooding, unbroken silence of the PCW (well, except when its disc drives have a little whirl or it bleeps at you), the 40 megabyte Gem is quite noisy. The internal fan needed to keep it cool hums constantly and it gives little clicking noises at odd times.

If you are really worried by the noise, get a 20 megabyte model, which doesn't have a fan and therefore makes as much (or as little) noise as a PCW.

## CP/M revisited

A hard disc works in exactly the same way as floppy disc except that it comes in a metal box and it can hold a lot more information. For example, the bigger Cirtech Gem can holding 40 megabytes of information can contain the equivalent of nearly 60 double density discs (the ones used for the 9512 and the B-drive on an 8512) and the equivalent of 250 8000 series A drive (173k discs).

This is obviously a great advantage. You can have all your favourite programs ready to call up at a moment's notice. Every file you ever created (from tiny word processed text files to massive desk top publishing pages packed with

### CP/M Plus Amstrad plc

v 1.8, 6LK TPA, 2 disc drives, SID/Centronics add-on, 368K drive M:

GEM V1.0 (C) CIRTECH UK Ltd 1991, LocoScript C: & D:, CP/M A: & B: - E: & F: in both

```
A>DIRS
A: J228LOC0 EMS : SCRCHAR JOY : KEYBOARD JOY : SCRIPT JOY : DISCMAN JOY
A: MATRIX PRI
NON-SYSTEM FILE(S) EXIST
A>DIR
A: J18CPM3 EMS : SUBMIT COM : GEM COM : MANAGER $$$ : GEM SYS
A: GEM HLP : MANAGER COM : BACKUP COM : RESTORE COM : PRINT COM
A: GEMHELP COM : GEM TXT : SWAP : COPYDISK COM : GEM DAT
A: LQ24 DRU : INSTALL DRU : PHRASES STD
SYSTEM FILE(S) EXIST
A>M
```

Gem's boot-up screen. In this case, drive a is the hard disc drive, containing the system files

### GEMHELP V1.0

At the HELP> prompt, type the topic name

EXAMPLE

HELP> USING-HELP

Topics available:

USING-HELP INTRODUCING SETTING-UP CP/M LOCOSCRIPT2 PROBLEMS?  
SPECIFICS

HELP> █

Gem comes complete with substantial HELP files, covering all aspects of the hard disc's use

graphics) could probably be contained on a 40 meg Gem. Instead of spending hours searching through piles of three inch discs you can find a file in seconds on your hard disc. Or can you? The problem with a disc that can hold 2,048 files (the 40 megabyte model) is that it could be more difficult to find a specific file on a massive hard disc than in a pile of floppies (which can be neatly labelled and colour coded, of course).

## Organise yourself!

The answer is, of course, that you have to organise your hard disc sensibly. It comes already divided up into handy five or 10 megabyte sections (20 or 40 megabyte versions) in effect, four

different hard disc drives A:, B:, E and F. (see the 'As Easy as ABE' box below). To move between them is as easy as moving from the A to the M drive. Simply type F:[RETURN] and you will be in the F drive. Or if you are in A: and want to run the program WORDPRO in D: just type in D:WORDPRO and the program should load.

This means you could, for instance, keep all your word processor files in one drive and spreadsheet files in another. And you might want to keep all your program files and CP/M utilities on one logical drive so that they are easy to find.

But the fact is that it is still quite difficult to find a file from amongst 512 files - the number you can have in each

## AS EASY AS...ABE

The feature that is most likely to confuse any PCW owner about the Cirtech Gem must be the way they have named the drives. If you have had a two drive PCW for a while you somehow get used to the fact that one drive is named A:drive and the other is (quite predictably) called B:drive.

Then when you start up a 40 megabyte Cirtech Gem you suddenly find that what you thought was the A:drive is suddenly the C:drive and the B:drive has become the D:drive.

This might seem a minor inconvenience until the day when you put a disc into what you used to think was the A:drive, type in A:\*. \* and erase up to 10 priceless megabytes from your hard disc.

By the way just in case this does happen it might be worthwhile looking at the Gemhelp sections on password protecting your important files in A: and B: so that CP/M will demand a password before you can delete your life's work. It is also worthwhile having a close look at the suggested methods of backing up

your hard disc on to floppies. You will also notice that when you use LocoScript 2 your two disc drives are suddenly A and B again and the hard disc drives are C:, D:, E: and F:.

### CONFUSED? YOU WON'T BE...

You might be forgiven for being ever so slightly confused. But the answer is simple. There were, once, some short-sighted programmers writing for the PCW who never considered that there would ever be such a thing as a hard disc for such a humble machine.

Because of this their programs would never think of looking for files on a drive D: or F:. But every program available on the PCW is set up to be loaded from A or B or even both A and B drives. So you know that you should be able to successfully load any software from your hard disc using the new A and B drives.

One little quirk that this causes is in programs like Protext that actually check themselves whether there is a disc in

drive A before they write to it for instance. This means that Protext will insist that there isn't a disc in drive A (which remember is a hard disc drive) until you place a floppy disc (any one will do) into what is now drive C:.

Another side effect of this is that you have to use a specially modified version of DISCKIT.COM called, rather tersely, DISC.COM. See Gemhelp for details. This again makes sure you are formatting a disc in C: and not the hard disc.

LocoScript 2 is a bit less flexible in that it just won't accept a hard disc on drive A or B so you have to go back to the normal set up with the hard drives running from C: to F:.

One obvious advantage of the extra speed in way the hard disc accesses files is that you can flick along the drives in LocoScript with the screen updating quite quickly.

One thing to note is that all the LocoScript functions work normally but you can only carry out the disc manager function [f2] on three inch floppy discs.

## Price Wars

If nothing else the appearance of a £200 hard disc seems to have galvanised the rest of the industry to look at low cost hard discs for the PCW market. SCA, for instance, have just reduced the price of their Vortex hard discs. While they no longer produce a 20 megabyte model they have slashed the price of the 40 megabyte Vortex to £299, matching the Cirtech price.



10 megabyte section.

This is where you suddenly have to start paying attention to all those obscure little CP/M utilities you found on the disc when you bought your PCW - the ones whose purpose you simply couldn't fathom out before now.

## User blues

And you may also have to get to grips with rather obscure concepts like User Groups. Actually, if you have ever used LocoScript (and who hasn't?) you will already know something about these. The groups 0 to 7 that you see at the top of the disc management screen in LocoScript are nothing other than user groups. Every CP/M disc from a 173k floppy to the biggest hard disc can all be divided up into 16 user groups (numbered 0 to 15 just to confuse outsiders). LocoScript just uses the first eight and keeps groups eight to 15 for Limbo files.

The only difference is that on a 10 megabyte hard disc drive it is quite sensible to divide your files up in this way while on a 173k floppy it is often more trouble than it is worth.

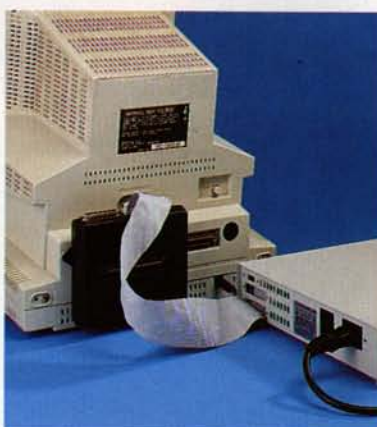
Just as you can change to drive B by typing B:[RETURN] at the A> prompt you can change to user group 6 by typing 6: at the A> prompt. You will see the prompt change to 6A>.

Then, if you take a directory of files (type DIR [RETURN]) only those files that are in group six will show. However if you do want to look at files in all the groups and you have DIR.COM on your hard disc type DIR[USERS=ALL] and you will get a list of all the user groups.

Many of the more modern software packages now allow you to access or to save files to user groups. The file copying utility and the backup program that Cirtech provide both have the distinct advantage that they will automatically handle all the files in all the user groups. One of the great

## Time trials on a 3,500 word document

	LOADING	SAVING
3" DISC	10.40 seconds	34.11 seconds
M: DRIVE	3.69 seconds	4.24 seconds
GEM	3.81 seconds	4.28 seconds



Gem fits neatly on to the back of your PCW, via its own expansion box (see box below)

have tried to popularise file managers on the PCW but they haven't seemed to take off. Perhaps the complications of finding a file on a hard disc might just give the impetus needed.

Manager is a simple program with none of the fancy file tagging features that you would find in a PC file manager. But having said, that it could well prove useful to anyone not conversant with the ways of finding files using CP/M utilities.

Based quite closely on a LocoScript disc management screen it allows you to check files on each drive and user group, to copy, erase, rename and print files with little effort. It will also run any program. This is certainly helpful for finding your way round the hard disc.

This is the same design as a new cut down printer expansion box that Cirtech are launching. Unlike the new design, low cost parallel printer ports just recently launched, these work with existing versions of CP/M and LocoScript 2 without problems.

With the proliferation of expansion boxes with mice, hand scanners and RAM (memory) packs it is very sensible for someone using an external printer to take up this option.

The Cirtech Gem is, all in all, a good, solid, fast and well-priced hard disc which any PCW user could find useful. There has been a good deal of thought and care lavished on its production, which puts Gem truly in a class of its own.

bugbears of using user groups was always having to switch back and forward when backing up your discs.

Gemhelp also gives some good ideas on the CP/M utility for date stamping your files (keeping a note of when they were created) allowing you to work out what file you are looking for by the date. It also gives details on functions like how to password protect your files - again a normal CP/M functions using SET.COM but one that you may consider useful.

## Just managing

One piece of software that comes on the disc is MANAGER.COM - a file managing program. Many manufacturers

## INSTALLING THE CIRTECH GEM

A four year old child could set up the Cirtech Gem. Unfortunately we couldn't find one but we did not too badly ourselves. All you need is a small space on your desk, an electricity socket, a copy of LocoScript 2 (at least version 2.28 or later) and about 10 minutes of spare time.

The Gem comes with an expansion box that fits into the expansion slot on the back of the PCW. If you have an 8000 series machine (one without an in-built parallel printer port) and you use an external printer you can get an expansion box with a parallel fitting to handle the printer cable.

The box has a through connector which means that it can have other expansion boxes 'piggy-backed' on to it. So, if you have a Rampac, hand scanner or mouse you can still use them with the hard disc.

By the way, make sure you have

switched your PCW off before you fit the expansion box. Attach the electric cable into the back of the hard disc, plug it into the mains and then attach the ribbon cable to the expansion box (it has a ridge on one side so you can't force it on upside down.)

Switch on the Gem (a little rocker switch on the back) and switch on your PCW. The first time you use it, it takes you through a 'once only' set up routine. This asks you really difficult teasers like, for example, "do you have an 8000 series machine or a 9512?"

It also asks you to load your version of LocoScript 2 - you just put the disc in the drive at the correct moment - and the software does all the file transferring.

It has to be version 2.28 of LocoScript or later. If you don't have the correct version you can get an upgrade from Locomotive Software (assuming you have a copy of LocoScript 2, of course).

It also allows you decide at that point whether you want CP/M or LocoScript to load by default. To choose the one which you would prefer, you just hold down the [ALT] key while starting up.

After that, you simply use the hard disc as you would use four big floppy discs - except you can't slip them into your pocket of course. You can save, load, erase, copy and rename files just as you have been used to doing before.

If you would prefer, there is an option to change the settings to have only two logical drives instead of two. This is rather complicated and hardly seems worth it unless you have a good reason. But it is an option.

One advantage with having a hard disc is that you need never again boot up in the standard way. Just switch the machine on and in seconds the PCW is ready to use. You can, of course, use a PROFILE.SUB file if you want.

## Make a date!

As we have said, Gem's help screen, Gemhelp, provides some interesting ideas on the CP/M utility datestamp. For more information on how to use that utility, turn to this month's Tipoffs section, beginning on page 65!

## GEM hard disc

### Pluses

- ▲ Inexpensive
- ▲ Fast
- ▲ No fuss set up

### Minuses

- ▼ Takes up desk space
- ▼ The 40 meg version is a little noisy

Range of features 4/5  
Ease of use 4/5  
Installation 5/5  
Value for money 5/5

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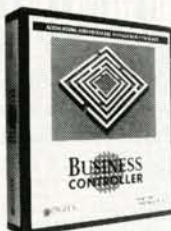


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# Listings

*More BASIC programs to amaze your friends. One will tell you how easy your writing is to read, and the other will provide bar codes for your new products!*

## BARCODE.BAS by Alan Dennis

A couple of months ago we issued a challenge: could anybody come up with a program to produce bar codes. Several of you could, but Mr Dennis of Barrow could do it the best!

His solution does three things: it scans the code to make sure that it is valid, by verifying the special check digit and rejects it if it is not; if the check digit is missing, it adds it in; and it prints the bar code on the printer.

The system of bar codes which the program uses is EPOS, which besides being the Ancient Greek for 'word' is also short for "Electronic Point of Sale".

The system is based on either 13- or 8- digit numbers - the numbers you often see printed across the bottom of a bar code. All but the last of these numbers carry information about the country, manufacturer and product. The last is a checksum digit, derived in a rather convoluted way from the others.

The 'bar' itself is made up of 15

```
Ok
RUN "BARCODE"
Epos Number :9770952505013
The checksum digit is 4
Dodgy Checksum in your number
Epos Number :977095250501
The checksum digit is 4
Check paper in printer: any key when ready
```



Putting our own bar code into the machine (you can see how it deals with mistakes, or missing numbers) produces this result

elements (11 elements for 8 digit numbers), which include three 'guard' segments - at the start, middle and end -

common to every bar code.

The other elements of the bar code are representations of the individual numbers (the actual bar for the 13 digit number does not use the first digit); but there are three possible representations of each number, depending on its position and the outcome of yet another code transformation.

A complicated way of generating a set of lines - but luckily, you don't need to know about that for this program. All you need to know are the 12 or 7 digits which precede the check digit. If you have the check digit, too, all well and good (the program will tell you if it is wrong); if not, it will automatically be added to the number.

Unfortunately, the program cannot print out on the 9512. However, you can still use it to generate and verify the all-important check codes, simply by omitting lines 240 to the end, and making line 240 read "240 GOTO 150".

10 REM BARCODE by Alan Dennis	0E0E
20 WIDTH LPRINT 255:DIM a\$(2,9)	0EC8
30 e\$=CHR\$(27):d\$=e\$+"L":w\$=CHR\$(0):v\$=STRING\$(14,0)	1220
40 FOR i=0 TO 9:a=ASC(MID\$("MYS}cgo{wK",i+1,1))-64:c=0	1A4D
50 FOR j=1 TO 7:b=255*(a AND 1):a=a\2	0E18

The ' character is entered using [ALT]+[@] - it is not '/'

60 IF (c=0) AND (b=255) THEN a\$(0,i)=CHR\$(b)+CHR\$(c)+a\$(0,i):GOTO 80	1899
70 a\$(0,i)=STRING\$(2,b)+a\$(0,i)	0A10
80 b=255-b:IF (c<>0) OR (b<>0) THEN a\$(1,i)=a\$(1,i)+STRING\$(2,b):GOTO 100	1B05
90 a\$(1,i)=LEFT\$(a\$(1,i),MAX(0,LEN(a\$(1,i))-1))+STRING\$(3,b)	1595
100 IF (c=255) AND (b=255) THEN a\$(2,i)=CHR\$(255)+w\$+a\$(2,i):GOTO 120	17CF
110 a\$(2,i)=STRING\$(2,b)+a\$(2,i)	0A43
120 c=255-b:NEXT:a\$(1,i)=MID\$(a\$(1,i),2,13)+w\$:NEXT	132B

These lines set up the printer codes which will eventually produce the barcode

130 b1\$=CHR\$(255)+w\$:wt\$=STRING\$(2,0):g1\$=b1\$+wt\$+b1\$:c1\$=wt\$+g1\$+wt\$	1A09
140 b2\$=CHR\$(192)+w\$:w2\$=STRING\$(2,0):g2\$=b2\$+w2\$+b2\$:c2\$=w2\$+g2\$+w2\$	17D9
150 INPUT "Epos Number :",a\$:a=LEN(a\$):IF a<>13 AND a<>12 THEN 180	1C0A
160 c\$=LEFT\$(a\$,1):c=VAL(c\$):a\$=MID\$(a\$,2):l=6	100B
170 b=ASC(MID\$("@KMNRV\UVZ",1+c,1))-64:GOTO 190	148D
180 IF a=8 OR a=7 THEN c\$=" ":c=0:b=0:l=4 ELSE PRINT"Dodgy number":GOTO 150	218A
190 k=c:FOR i=1 TO 2*1 STEP 2:k=k+3*VAL(MID\$(a\$,i,1)):NEXT	17F3
200 FOR i=2 TO 2*1-1 STEP 2:k=k+VAL(MID\$(a\$,i,1)):NEXT	18C3

Line 150 accepts a number, which is then checked and rejected if it does not follow the rules



```

210 k$=CHR$(58-K MOD 10):IF k$=":" THEN k$="0"
220 PRINT "The checksum digit is ";k$:IF a=7 OR a=12 THEN a$=a$+k$:GOTO 240
230 IF MID$(a$,1*2,1)<>k$ THEN PRINT"Dodgy Checksum in your number":GOTO 150
240 PRINT "Check paper in printer: any key when ready":WHILE INKEY$="":WEND
250 p$=STRING$(16,0)+g1$:b$=STRING$(16,0)+g2$
260 FOR i=1 TO 1:a=VAL(MID$(a$,i,1)):p$=p$+a$(1+((b AND 32)<>32),a)
270 b=b*2:b$=b$+v$:NEXT:p$=p$+c1$:b$=b$+c2$
280 FOR i=1+1 TO 2*1:a=VAL(MID$(a$,i,1)):p$=p$+a$(2,a):b$=b$+v$:NEXT

```

These lines (from 260) build up p\$, which represents the bar code itself

```

290 p$=p$+g1$:b$=b$+g2$:LPRINT e$;"A";CHR$(8)
300 FOR i=1 TO 8:LPRINT d$;CHR$(LEN(p$));w$;p$:NEXT
310 LPRINT d$;CHR$(LEN(b$));w$;b$;e$;"A";CHR$(2);e$;"!";CHR$(36)1926
320 LPRINT c$;d$;CHR$(2+LEN(g1$));STRING$(3,0);g2$;LEFT$(a$,1);
330 LPRINT d$;CHR$(LEN(c1$));w$;c2$;MID$(a$,1+1);

```

And finally, everything is printed out using the LPRINT in these last five lines

```

340 LPRINT d$;CHR$(LEN(g1$));w$;g2$:GOTO 150

```

## READABLE.BAS by Richard Fairhurst

Do you ever worry that people can't read your writing? Not in terms of the calligraphy - not an issue when you're word processing - but whether you use lots of short words, or prefer an proliferation of multi-syllabic paraphrases producing circumlocutory expositions of uncomplicated conceptualisations. Long words, to us.

When you are writing, it is very difficult to stand back from a piece and say objectively how difficult it is going to be to read. What you need is something that can look at the evidence in a disinterested manner, and form its own conclusions. And you have one of those: a computer.

When you type in and run this program from Richard Fairhurst, you will be asked for the name of the document to be analysed. This must be an ASCII file - if you want to analyse a LocoScript file you will have to convert it first using the 'Make ASCII file' option under [f1] of the Disc manager ([f7] in LocoScript 1).

Give the name of the file, then, and sit back and wait - but don't go away quite yet. The program will flick through

```

Is examine a proper noun? N
Is every a proper noun? N
Is someone a proper noun? Y
Is something a proper noun? Y
Is obviously a proper noun? N
Is simplifying a proper noun? N
Is syllable a proper noun? N
Is ignore a proper noun? Y
Is calculations a proper noun? N
Is readability a proper noun? N
Is However a proper noun? N
Is exhaustive a proper noun? N
Is actually a proper noun? N
Is syllable a proper noun? N
Is anyway a proper noun? N
Is document a proper noun? N
Is representing a proper noun? N
Is separate a proper noun? N
Is Automated a proper noun? N
Is Readability a proper noun? N
Is conclusions a proper noun? N
Is different a proper noun? N
Is similarly a proper noun? N
Is individual a proper noun? N
Is characters a proper noun? N

```

```

FOG 12.6
Automated Readability 15.2
Coleman-Liau Index 13.6
OK

```

Readable goes to work on the text of this article. Each long-looking word is questioned, and the results are displayed.

the file and examine every word. If it comes across one that is three syllables or more, it will ask if it is a 'proper noun' - the name of someone or something. There is obviously nothing you as the writer can do about simplifying 10 syllable names, so the program will ignore them in its calculations to work

out the readability of the text.

However, its tests for the number of syllables are not exhaustive. The spelling of some words may trick it into thinking that a word of two syllables actually contains three syllables. If this happens - if you are presented with a two syllable word - press 'Y' anyway.

When it has gone all the way through the document, the program will produce its results. There are three results, each representing the readings of separate methods: the FOG index, the Automated Readability and the Coleman-Liau. Each claims to evaluate the reading age required to read your piece of text.

You'll find that they differ in their conclusions, but try running a few different pieces through - perhaps a tabloid story, a piece from the Times, some Dickens and some Enid Blyton. You'll get a feel of the sort of scores that each produces, which you can then apply to your own work.

As a bonus, type **PRINT word** and you will be given a word count for the piece: **PRINT sentence** and **PRINT length** will similarly tell you the number of sentences and individual characters.

## Designer error

Whoops! Apologies to Tom Pearce and all who've been disappointed so far - a line got omitted from the September Listings pages. If you add a line 540 to the DESIGNER.BAS program:

```

540 text$(7)=text$(7)+STR$(b(pqr,mno)+"");RETURN

```

then order will be restored.

```

10 DEF FNr$(x)=RIGHT$(w$,x)
20 c$="ABCDEFGHIJKLMNOPQRSTUVWXYZ":c$=c$+LOWER$(c$)+"0123456789-"
30 PRINT:INPUT "Filename ";f$
40 ON ERROR GOTO 170:OPEN "I",1,f$
50 i$="":w$="":WHILE INSTR(c$,i$)>0
60 i$=INPUT$(1,1):w$=w$+i$:length=length+1
70 WEND:length=length-1:t$=FNr$(1):w$=LEFT$(w$,LEN(w$)-1)
80 IF INSTR("!?.",t$)>0 THEN sentence=sentence+1
90 IF w$="" GOTO 50
100 word=word+1

```

Lines 50-100 read the file and calculate the number of words, characters and sentences in the piece.



110 o\$=w\$:GOSUB 260	07E4
120 IF syllable<3 OR hyphen GOTO 160	1272
130 PRINT "Is ";o\$;" a proper noun? ";	10A8
140 i\$=UPPER\$(INPUT\$(1)):IF i\$="N" THEN ex=ex+1	144E
150 PRINT i\$	04FD
160 GOTO 50	0476

Error 62 is the 'End of File' error. In this case, the end of the file is a good thing, not an error, so we can continue

170 IF ERR<>62 THEN ON ERROR GOTO 0 ELSE RESUME 180	18AA
180 PRINT	047B
190 fog=(word/sentence+ex/(word/100))*0.4	1315
200 ari=4.71*(length/word)+0.5*(word/sentence)-16.43	16F3
210 cli=5.89*(length/word)-0.3*(sentence/(word/100))-10.8	16BA
220 PRINT "FOG";TAB(40);ROUND(fog,1)	1072
230 PRINT "Automated Readability";TAB(40);ROUND(ari,1)	1CF2
240 PRINT "Coleman-Liau Index";TAB(40);ROUND(cli,1)	1916
250 END	036C

Lines 190 to 210 calculate the different indices - if you want to know how each is calculated, this is the place to look!

260 ' Syllable counting routine	1170
270 hyphen=0:syllable=0	0C63
280 w\$=LOWER\$(w\$)	0609
290 IF FNR\$(1)="e" AND FNR\$(2)<>"le" AND FNR\$(2)<>"re" THEN w\$=LEFT\$(w\$,LEN(w\$)-1)	1F1E
300 IF LEFT\$(w\$,1)="y" THEN MID\$(w\$,1,1)=""	0F3A
310 IF FNR\$(2)="ed" OR FNR\$(2)="es" THEN w\$=LEFT\$(w\$,LEN(w\$)-2)+"&"	187C
320 IF FNR\$(4)="uous" THEN w\$=LEFT\$(w\$,LEN(w\$)-4)+"&f&f"	1660
330 IF FNR\$(2)="ea" THEN w\$=LEFT\$(w\$,LEN(w\$)-2)+"&f"	1566

Lines 290 to 330 represent a brief lesson in English pronunciation - what is and isn't a new syllable

340 RESTORE 460:FOR n=1 TO 6:READ t\$	0F4C
350 IF INSTR(w\$,t\$)>0 THEN w\$=LEFT\$(w\$,INSTR(w\$,t\$)-1)+"&f&f"+MID\$(w\$,INSTR(w\$,t\$)+2)	2529
360 NEXT	0428
370 FOR n=1 TO LEN(w\$)	0962
380 IF MID\$(w\$,n,1)="-" THEN hyphen=-1	0F23
390 IF INSTR("aeiouyf",MID\$(w\$,n,1))>0 THEN MID\$(w\$,n,1)="f" ELSE MID\$(w\$,n,1)=""	2525
400 NEXT	0418
410 n=INSTR(w\$,"ff"):IF n>0 THEN w\$=LEFT\$(w\$,n)+MID\$(w\$,n+2):GOTO 410	1F08
420 n=INSTR(w\$,"&&"):IF n>0 THEN w\$=LEFT\$(w\$,n)+MID\$(w\$,n+2):GOTO 420	1BA1
430 IF LEFT\$(w\$,1)="f" THEN w\$=""&w\$	0F24
440 IF LEFT\$(w\$,2)="&f" THEN syllable=syllable+1:w\$=MID\$(w\$,3):GOTO 430	2268
450 RETURN	050E
460 DATA ao, eo, uo, ua, oe, ia	0BD4

The final data line is a 'dictionary' of non-diphthongs, which is consulted in line 340-360, again to check the number of syllables

## HOW TO TYPE IN A LISTING

Load up CP/M, and type BASIC [RETURN]. You can immediately begin typing in the Listing, including everything except the numbers on the right hand side. These are for the special CHECK3 program (see the July issue).

Only use the [RETURN] key at the end of each full line of text. When you have typed in the Listing, check it carefully - especially the punctuation - and then save it by typing SAVE followed

by the name of the program in inverted commas. You can then reload it whenever necessary by typing LOAD followed by the same program name in inverted commas.

To run the program, simply type RUN [RETURN]. If the program doesn't work, type LIST and check your typing thoroughly - the smallest mistake can make the program crash.

If you do find a typing error, you can

either rewrite the whole line, or else type EDIT followed by the line number, and correct the mistake from there.

When editing, use the cursor keys to move around. Don't forget to save the corrected version before running it! If you do get an error message with a line number attached, it does not necessarily mean that the mistake lies in that line.

For more details, see the Listings pages of previous issues.





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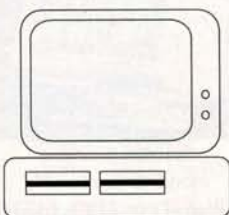
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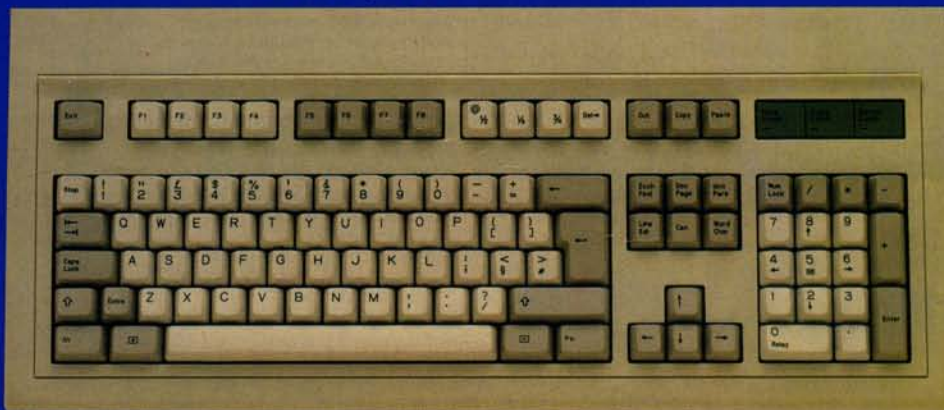
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### MicroDesign2 Int. User Group

15 Elsham Close, Bramley,  
Rotherham S66 0XZ.  
Enquiries: Phil Cole (above address)

### Hastings PCW Club

7 Fulford Close, St. Leonards-on-Sea,  
East Sussex TN38 0PN  
Enquiries: Joe Unwin Hastings 715108

### Gloucestershire PCW User Group

2A Selsey Villas, Selsey West, Stroud  
GL5 5LQ Enquiries: David Bailes  
0453 828281

## TRAINING

### Banna Word Processing

29 New Bond Street, London W1Y  
9HD Subjects: Loco 1&2, SuperCalc,  
Enquiries: 071 493 3336

### Computer Training Centres UK

Exchange Buildings, Upper Hinton  
Road, Bournemouth BH1 2HH  
Enquiries: 0202 299676

### Dynamic Sales and Training

47 Goldsworth Road, Woking, Surrey  
Subjects: LocoScript 1 & 2, dBase, dBase II,  
SuperCalc 2. Enquiries: 0483 756914

### Headline Communication Ltd

PO Box 22, Hereford HR4 8UW  
Subjects: LocoScript 1 & 2, CP/M,  
dBase II, SuperCalc 2  
Enquiries: 0432 271598

### Horsham Office Skills Training

Unit 2, 24 London Road, Horsham,  
West Sussex RH12 1AY  
Subjects: LocoScript 1 & 2, Wordstar  
Enquiries: 0403 211440

### John S Blandford

15 St Albans Road, Sandridge,  
St Albans, Herts AL4 9LA.  
Subjects: LocoScript 1, 2 & PC,  
LocoFile and LocoMail  
Enquiries: 0727 59913

### Linkom Training

32 Hill Street, Totterdown, Bristol  
Subjects: LocoScript 1 & 2, Sage  
Accounts. Enquiries: 0270 717435

### No Hassle Computing

36 Tantallon Road, Balham,  
London SW12 8DG  
Subjects: LocoScript 1 & 2, Supercalc,  
Cracker, Masterfile  
8000. Enquiries: 081 675 3139

### Molesley Education

Flat 3, 10, Matham Road, East olesley  
Subjects: LocoScript 1 & 2, Loco PC  
Enquiries: 081 941 1364

### Scottish Business Services

28 High Street, Paisley PA1 2A7  
Enquiries: 041 8481135

### Off the Shelf Training Services

5a West Street, Bognor Regis, West  
Sussex, PO21 1UB. Subjects: LocoScript  
1 & 2, LocoMail. Enquiries: 0243 827778

### Rodesign

195 Milwards, Harlow, Essex  
CM19 4SJ. Subjects:  
Micro Design, ProScan.  
Enquiries: 0279 444313

### Victoria College

13 Dalton Square, Lancaster, LA1 1PL.  
Subjects: Loco 1&2, Supercalc, dBase,  
WordStar, Sage Accounts, Stop Press  
Enquiries: 0524 33996

### Wetherby Office Training

Cambridge House, 39 Cambridge St.  
Wellingborough, Northants NN8 1DW.  
Subjects: Loco 1&2, dBase, Supercalc 2  
Enquiries: 0933 222400

### Wetherby Price Training

30 New Canal, Salisbury, Wiltshire.  
Subjects: LocoScript 1 & 2,  
CP/M, SageAccounts.  
Enquiries: 0722 24005

### Jacque Errington,

2 Willow Tree Close,  
Wickham Market, Woodbridge, Suffolk  
IP13 0TB Subjects:  
LocoScript 1, 2 & PC, LocoFile, LocoMail.  
Enquiries: 0728 746461



# KeyMouse



"THE TOP OF THE TREE"  
(8000PLUS Magazine)

**£54.95**

THE NEW MOUSE FOR MICRODESIGNERS!

**NEW! VERSION 2** **TWEAK** **OUTLINE FATTEN**  
ROTATE ROTATE ROTATE ROTATE ROTATE  
BEND IN A CIRCLE  
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RIPPLING PERSPECTIVE EFFECTS

TWEAK is by far the most powerful graphics software ever written for the PCW: the transformations shown here are only a small sample of what can be done with this remarkable program. It can bend, twist, rotate, and do just about anything else with graphics files from MicroDesign2, ProSCAN, Stop Press, the Desktop Publisher, or Masterscan. TWEAK is only available on the Creative Technology Utilities Disc, which costs £24.95.

THIS ADVERT WAS DESIGNED AND PRINTED USING A PCW WITH TWEAK, MICRODESIGN2, PROSCAN SOFTWARE AND AN HP LASERJET PRINTER

## FEATURES

- KeyMouse is a high-quality three-button mouse specially made for Creative Technology by Naksha.
- A unique mouse controller gives KeyMouse its variable resolution (72-400dpi), and controls its operating modes and user options.
- KeyMouse has a "dynamics accelerator", a three-stage speed detector which gives the mouse movement a natural 'feel'.
- The mouse arrow can be locked to move only vertically or horizontally, making it much easier to edit individual pixels, draw straight lines, or align images accurately.
- The KeyMouse package includes a MicroDesign and ProSCAN upgrade disc, which contains the very latest versions of the programs to include the KeyMouse drivers.

ProSCAN (PCW) ..... £184.00  
MicroDesign2 (PCW) ..... £62.00  
KeyMouse (PCW) ..... £54.95  
Utilities Disc (PCW) ..... £24.50  
MicroDesign2 (PC) ..... £72.00  
Extra Fonts Discs (each) ... £16.00  
Parish Library (2 discs) .... £21.00  
Maps Library (2 discs) ..... £21.00

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**£49.95**  
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Suitable for the Amstrad PCW 8256, 8512 and 9512

# MONEY MANAGER PCW

Now even more powerful, more friendly, and more useful !!!

Be your own accountant!

Control your finances the easy way!

Money Manager PCW provides individuals, businesses and professional people with a simple yet powerful way of managing their financial activities. All transactions can be entered easily and then presented in a wide variety of reports, ranging from a detailed listing of expenditure for tax purposes to summaries showing, for example, how much money has been spent on petrol or phone bills in a chosen period. Reports can be printed as text, sent to a datafile for further processing or presented in graphical form.

The program includes many helpful features, such as pop-up calculator, context-sensitive help windows and macro commands. The Money Manager package has over 25,000 users in the UK alone. It is the ideal program for people who find that traditional accountancy programs are too complicated, unwieldy and time-consuming for their requirements.

- Any number of data files: Personal, Business, Accounts etc.
- Budget and cash-flow forecasts - which may be updated
- 12 months per file, up to 500 entries (transactions) per month
- Move a file forward a month at a time when required
- All options selected from the main menu
- Up to 20 user-defined accounts: Bank, Cash, Visa, Savings etc.
- Up to 50 user-defined classes of income and expenditure
- A reference of up to 6 characters for each entry
- Your own descriptive text of 18 characters for each entry
- All the codes are displayed on-screen whilst entering data
- Add, modify and delete existing entries at any time
- Quick insertion of standard entries and standing orders
- Entries can be sorted into date order at the touch of a key
- Single character 'mark' for extra reporting selectivity
- Statements showing each entry in detail with running balance
- Reports may show classes merged into logical groups
- Spreadsheet type table showing class totals in each month
- Report showing class totals for each account
- Bar chart for up to 4 selected categories
- Pie charts of up to 20 selected 'slices'
- Detailed bank statement reconciliation with running balance

- Totals for each class of transaction for any period
- Report of monthly income, expenditure and cash-flow etc.
- Report of account and class totals (eg profit & loss)
- Account statistics - monthly max, min, average, balance etc.
- Automatic calculation of VAT, with multiple rates if required
- Detailed VAT reports showing taxable, VAT and gross amounts
- Summary VAT statements in the same format as a VAT return
- Simply ignore VAT features if they are not required
- Print any report to built-in (or separate) printer
- Print any report to a file for word-processing (eg in Locoscript)
- Data search facility to find 'lost' items
- Built-in text line editor for data entry
- Horizontal and vertical scrolling of screen reports
- Pop-up five function multi-line calculator with memory
- Macros to record and replay user-defined reports
- Context-sensitive help windows appear at the touch of a key
- Automatic creation of back-ups for data files
- You can choose which disc drive to use for data on a PCW8512
- Comprehensive 64 page indexed manual
- Two sets of sample data for practice and familiarisation
- Free and indefinite telephone support

**Connect**  
Software Ltd.

To receive your copy of Money Manager PCW by return post phone us now with your credit card number, or write to us at the address below enclosing your cheque for £49.95

**081 743 9792** 8am to 10pm, 7 days a week  
Connect Software Ltd., 3 Flanchford Rd., London W12 9ND





# The Good Software Guide

These pages provide a comprehensive guide to the Amstrad PCW software. Published in three monthly parts, this time it's the turn of Word Processors (including Desk Top Publishers), Accounts/Payroll packages and Utilities. We've set out to cover every important piece of software we could lay our hands on, and to give you enough information to decide whether they are suitable for you. All software will run on both the 9512 and the 8000 series machines, though the former's daisywheel printer cannot print graphical output. The selection isn't comprehensive, but the software listed here represents what we think is the best of that currently available. As well as a brief summary of what they do, the main Plus and Minus points for each program are listed -

## Word Processors

Word processors are at the heart of the PCW world. The native package, of course, is LocoScript, but several others are available. Their main function, of course, is to handle text - but there are many features added to that which are individual to each program.

### PROTEXT/POCKET PROTEXT

£59.95/£29.95 Arnor • 0733 68909

The best CP/M wordprocessor. Fast at moving around large files, and packed with features. Works with LocoScript keys too. Has a good spelling checker, a lightning fast word counter and a very powerful mailmerger. 'Pocket Protext' is a stripped down version - essentially the same word processing features, but no spell checker, mailmerger, or two column printing. Specify which machine you have when buying.

#### PLUSES • MINUSES

- ▲ Complete with spell check/word counter
- ▲ Packed with features, eg. calculate facility, text editor for writing programs, 'print to screen' option etc.
- ▲ Lets you work with two documents at once
- ▲ You can do all of CP/M's functions without leaving Protext
- ▲ Very fast at moving around, doing exchanges and so on
- ▲ Extremely powerful and flexible mailmerger
- ▼ Forces you to learn another new set of control keys to use it

### TASWORD 8000

£24.95 • Tasman • 0532 438301 • 8000's only

Simplifies document planning by minimising dependency on layout procedures. Allows quick and easy access to parts of text by existence of a marker system. The 'Search' and 'Find/Replace' facilities are simple to use, but very thorough.

#### PLUSES • MINUSES

- ▲ Easy to use
- ▲ Excellent mailmerge and label-printing

### EASY LABELLER

£29.95 (plus VAT) • M.A.S.S. • 0603 630768

Labelling program which stores your names and address list and will print out in label format selected items from it.

#### PLUSES • MINUSES

- ▲ Useful options like printing out current date
- ▲ Good search facilities
- ▲ Printing options for most stationery
- ▼ Data needs an entire disc to itself
- ▼ Returning to main menu slows data entry

### LOCOSCRIPT 2

£29.95 (plus VAT) • Locomotive Software 0306 740606

As bundled with new 9512, the new version of everyone's first word processor. If you know how LocoScript 1 works, you'll have minimal

relearning to do, and it puts right (almost) all the defects of the old version at a rock bottom price. Greek and Cyrillic alphabets, and even lets you define up to sixteen characters of your own design.

#### PLUSES • MINUSES

- ▲ 'Find page' command speeds moving around
- ▲ Superb range of foreign accents and symbols
- ▲ Can now drive daisywheel and other printers
- ▲ Has DISCKIT's formatting and copying built into it
- ▲ New 300-page manual
- ▼ Mailmerger and spell checker not included
- ▼ Inconvenient for regular CP/M users
- ▼ Still no word counter!
- ▼ Still slow at Find, Exchange and scrolling

### LOCOSPELL

£24.95 (plus VAT) • Locomotive • 0306 740606

The ultimate spelling checker for LocoScript users. It is run as a simple menu choice while you are editing a document normally, and you can check either an entire document or only a paragraph. When it finds an error, it suggests a correction. Reasonably fast.

#### PLUSES • MINUSES

- ▲ Runs totally from within LocoScript
- ▲ Can do small sections of a file
- ▲ Suggests alternatives for misspelt words
- ▲ Reformats the text as it makes corrections
- ▲ Provides the missing LocoScript word count
- ▼ Can't remove spellings you don't like
- ▼ The manual gets bogged down sometimes
- ▼ Slow at scrolling the dictionary window

### LOCOMAIL

£29.95 (plus VAT) • Locomotive 0306 740606

As a mailmerger for LocoScript, it's difficult to see how anything could be better than this. It runs directly from LocoScript, and can process any LocoScript commands. Has many advanced features and is highly recommended for all LocoScript users.

#### PLUSES • MINUSES

- ▲ You don't have to run it from CP/M
- ▲ Prints LocoScript text formatting commands
- ▲ Automatically rejustifies paragraphs
- ▲ Can insert numeric calculations into letters
- ▲ Can read data from ASCII files
- ▲ Large manual, with example files on disc
- ▲ Powerful database-style selection procedures
- ▼ Need separate program to sort and filter addresses before a print run

### PROSPELL

£29.95 • Arnor • 0733 68909

A stand-alone spell checker for use with almost any wordprocessor that runs on the PCWs. Reads LocoScript, WordStar and ASCII files, and allows you to make corrections directly, view the context, change the dictionary etc. Specify which machine when buying.

#### PLUSES • MINUSES

- ▲ Checks LocoScript and WordStar and ASCII documents directly.
- ▲ Displays the context of a suspect word

- ▲ Can edit misspellings directly from Prospell
- ▲ Anagram and crossword solvers too
- ▼ Processes files of 15K or more in sections

### NEWWORD II

£60.83 (plus VAT) • NewStar Software • 0245 265017

NewWord exploits the WordStar market by doing the same job better. It uses much the same key commands as WordStar and will even edit documents prepared under WordStar Comes with a spelling checker, and the on-screen help is slightly better than WordStar's, though the keystrokes are still as obscure

#### PLUSES • MINUSES

- ▲ Does everything WordStar does, even reads WordStar files
- ▲ Spelling checker included
- ▲ Can un-erase words and lines
- ▲ Onscreen help better than WordStar's
- ▲ Full reformatting of text within mailmerger
- ▼ Weak on use of keypad and printer support
- ▼ Like WordStar, formatting troubles and obscure commands

### LABEL PRINTER

£25.00 • Microdraw • 0622 685481

Similar to Easy Labeller if not quite as powerful. Usual features of a labeller and you can store comments with each label's data.

#### PLUSES • MINUSES

- ▲ Menus simple - easy to get going
- ▲ Fast data entry
- ▲ Can store comments with each entry
- ▼ No import or export of data
- ▼ Data needs an entire disc to itself

### LOCOKEY

£14.95 (plus VAT) • Locomotive Software • 0306 740606

This successor to LocoChar is a keyboard customiser which means that any key can be made to produce any letter. The program will reproduce any one of the sixteen LocoChar-defined characters.

#### PLUSES • MINUSES

- ▲ Handles any combination of accent and character
- ▲ Is fun and easy to use
- ▼ Will only be of limited use

### ANSIBLEINDEX PLUS

£34.95 • Ansible Information • 0672 62576

The upgraded version of the LocoScript document indexer. Type in your LocoScript document as normal highlighting the words to be indexed with a LocoScript (+RV) code. The program will compile an alphabetical list of entries complete with the appropriate page number. A friendly, useful little package.

#### PLUSES • MINUSES

- ▲ Don't need to convert files into ASCII files
- ▲ Word counter also included
- ▲ Runs with both LocoScript 1 and 2
- ▲ One index can be used for several files
- ▲ Indexes can be edited on screen
- ▲ Index entries can be inverted; instead of 'mutton pie,' for example, 'pie, mutton.'

## Accounts

'Accounts' covers far more than just the balancing of income and outgoings. Many of the programs are specific to some application, and they range from the simple to the extremely complex, with prices to match.

### VITAL PROCESSOR SERIES

£39.95 each • Vital Software 0732 810330

Series of three programs designed to look after your money and your assets. The Savings Processor handles a portfolio of stocks and shares; including your 'net worth' like a balance sheet. Insurance Processor makes an inventory of all your possessions and put a value on them. Income Processor helps you keep tabs on your incomings and outgoings.

#### PLUSES • MINUSES

- ▲ Can complete inventories room by room
- ▼ You have to be keen to do all the research
- ▼ It can be time-consuming

### DIGITA BUSINESS CONTROLLER

£69.95 • Digita International 0395 270273

Not a full accounting system, but an easy-to-use package. Nominal ledger already set up and you can be up and running in minutes. No aged creditor/debtor lists. Upgraded to include VAT handling procedures. Ideal for small business.

#### PLUSES • MINUSES

- ▲ Delight to use with a very good manual
- ▲ Financial ratios can be included in reports

### BOOK-KEEPING AND ACCOUNTS

£69 (with invoicing, £80.50; with invoicing and stocks, £92) • Manx Tapes • 0624 813071

Recently updated suite of programs advocating a very traditional style of double-entry book-keeping. Useful demonstration disc also supplied with more than 200 example accounts.

#### PLUSES • MINUSES

- ▲ Solid, traditional approach to double-entry book-keeping
- ▼ Program doesn't make full use of the PCW
- ▼ Screen prompts not always that helpful
- ▼ Written in BASIC, so prone to sluggishness

### MONEYWARE ACCOUNTS

£249.00 (plus VAT) • Compact Software Ltd 0628 777456

Another large, integrated package consisting of sales, purchase and nominal ledger together with invoicing. Available on larger micros using the same format as on PCWs, so ideal for users planning to upgrade hardware.

#### PLUSES • MINUSES

- ▲ Audit trails are an auditor's dream
- ▲ Data can be exported to other packages
- ▲ Superb prepayment facility



- ▲ Can run a number of companies separately
- ▼ Lots of disc swapping necessary
- ▼ Can be slow – it runs in Mallard Basic
- ▼ Quirks in cash allocation routine and account code system

## M.A.P. INTEGRATED ACCOUNTS

£249+VAT • MAP Systems 061 624 5662

A powerful package moved on to the PCW at a fraction of its cost on larger micros. A little cumbersome but few significant problems. An integrated suite with the same five modules as Camsoft, supplied on four sides of disc. Can't run on an unexpanded 8256.

### PLUSES • MINUSES

- ▲ Very good audit trails
- ▲ Sales/purchase ledgers can run over different periods
- ▲ Handles prepayments and accruals
- ▲ Able to print full management accounts
- ▼ Needs a lot of disc swapping

## SIMPLE ACCOUNTS II

£79.00 (plus VAT) • Cornix • 0234 219969

The perfect accounts package for the small business for its simplicity of operation, and the limitation of its features to the essentials. Features include a useful cross-reference facility to collate expenses on individual contracts. Comprehensive VAT section.

### PLUSES • MINUSES

- ▲ Simple, easy-to-use program
- ▲ Can correct errors
- ▲ Keeps track of debtors and creditors
- ▲ Useful search facility

## CAMSOFT PSIL

£180.14+VAT • Cambrian Software • 0766 831878

Five integrated packages: Sales, purchase and nominal ledgers, invoicing and stock control. It falls somewhere between the Sagesoft package and the larger MAP and Compact systems. Easier to run than the larger packages since all the software can be squeezed into the M drive. Good package for a small company.

### PLUSES • MINUSES

- ▲ Already set up for 8256 or 8512
- ▲ No need for pre printed stationery
- ▲ Excellent sort and search facilities
- ▲ Invoices shown on screen
- ▼ Need to input full five-digit account codes
- ▼ No final accounts reports on nominal ledger

## INBUSINESS

£160.00 • Cavalier Software 049 264 1548

A comprehensive integrated package with 'Intact' accounts and 'Instock' stock control, available separately for £59.95 each. Easy to run and powerful enough for most businesses

### PLUSES • MINUSES

- ▲ Other packages (eg: 'Teleadd' address book) can be added
- ▲ Sophisticated pricing and order features in Instock section
- ▲ Flexible accounts, traps most mistakes.
- ▲ Forward planning facility in stock control
- ▼ Manual gives a confusing list of options

## SMALL BUSINESS ACCOUNTS

£60.83 (plus VAT) • NewStar • 0245 265017

Using the split-screen method, the prompt-driven program leads you, painlessly through the hazards of double-entry book-keeping. Useful demo files. It also handles VAT easily.

### PLUSES • MINUSES

- ▲ Excellent system of screen prompts
- ▲ Good demonstration files
- ▲ One of the easiest double-entry systems
- ▼ Manual is really for the PC

## SAGE POPULAR ACCOUNTS

£87 • Sagesoft • 091 2131555

An integrated accounts package with purchase, sales and nominal ledgers. For another £50 you get Accounts Plus with invoicing and stock control. Aimed at small companies with the emphasis on easy set up. Some limitations, eg. the package cannot cope too easily with rapidly increasing numbers of customers and suppliers.

### PLUSES • MINUSES

- ▲ Tidy, logical screen layouts and menus
- ▲ Easy to set up and use
- ▲ Good audit trails and VAT reports
- ▲ Can produce formatted trial balances
- ▼ Restrictive account numbering system
- ▼ Only single Nominal ledger and VAT analysis per item
- ▼ Does not cater for settlement discounts
- ▼ Won't print remittance advice slips
- ▼ Cramped on 9512 printer – need 17 pitch daisywheel

## M.A.P. PAYROLL

£199+VAT • MAP Systems • 061 624 5662

### PLUSES • MINUSES

- ▲ Can amend and re-run at any stage (even after printing)
- ▲ Cash analysis broken down to departments
- ▲ Prevents re-use or amendment of leavers
- ▲ Can hold up to 40 standard hourly and weekly wage rates
- ▼ No SSP calculation facility
- ▼ Programs necessitate a lot of disc swapping
- ▼ No printed record of automatic tax code changes

## SAGESOFT POPULAR PAYROLL

£61 • Sagesoft • 091 2131555

### PLUSES • MINUSES

- ▲ Any or all employees payroll can be rerun at any stage
- ▲ Full pay history available for all employees and leavers
- ▲ Calculates average pay for holidays etc
- ▼ Limited number of additions/deductions
- ▼ Doesn't print a list of cheques
- ▼ No analysis of additions/deductions

## COMPACT MONEYWARE PAYROLL

£199.00 (plus VAT) • Compact Software Ltd 0628 777456

### PLUSES • MINUSES

- ▲ Supplied with test data
- ▲ Change employees tax codes after budget
- ▲ Can run payroll for several companies
- ▲ Data transportable to PC version
- ▼ Must be run from the master discs
- ▼ Needs input form and check calculation for each employee
- ▼ Once payslips are printed can't be changed
- ▼ Most expensive payroll program

## CAMSOFT PAYROLL

£60+VAT • Cambrian Software • 0766 831878

### PLUSES • MINUSES

- ▲ Full payslip displayed on screen. Any item can be amended
- ▲ Facility for freehand narrative on payslips
- ▲ Using M drive speeds operation
- ▲ Built in on-screen help facility
- ▲ Search-sort routine for output to screen, printer or disc
- ▲ Uses alphanumeric employee codes
- ▼ Screen menus a bit untidy and sometimes difficult to follow
- ▼ No listing of cheques

## CHECK ACCOUNT TWO

£14.95 • Molesoft • 0372 275053

Keeps track of personal household accounts. Stores details of up to four different accounts per disc, records withdrawals and deposits and

gives you current balance at any time. Shows both minimum and maximum balances over previous or current months. Comprehensive interest-calculating options.

### PLUSES • MINUSES

- ▲ No double-entry book-keeping or VAT returns to wrestle with
- ▲ Very easy to use
- ▲ Carries last month's spending levels forward into this month
- ▲ Tiered interest rate option available

## EASI-ACCOUNTS SYSTEM

£23.95 • Arctan Computer Ventures 1 Foxwell Square, Southfields, Northampton NN3 5AT

Aimed at the small business man or the very organised home user. Works on the traditional system of ledgers with up to 500 entries (or individual transactions) allowed per ledger.

### PLUSES • MINUSES

- ▲ Comprehensive List and Search facilities
- ▲ Manual assumes you know nothing about accounting and is, on the whole, well-written
- ▼ Not a particularly easy package to use
- ▼ You would have to be exceptionally well organised to use it

## MONEY MANAGER PCW

£49.95 • Connect Software Ltd • 081 743 9792

Designed for individuals, small businesses and clubs, who might find a larger package daunting. The program concentrates on income and expenditure, each file covering a 12-month period with up to 500 entries per month.

### PLUSES • MINUSES

- ▲ Up to 20 different accounts catered for
- ▲ Up to 50 transaction codes help categorise income and expenditure
- ▲ Needs little computer or accounts expertise
- ▲ Information can be displayed in the form of a bar or pie chart
- ▼ Too limited for bigger businesses
- ▼ Over-featured for domestic use

## Utilities

Utilities is a broad category, containing all the software that won't fit elsewhere. In practice, this means two main functions – programs for unusual applications and those which perform useful and varied 'housekeeping' tasks.

## 2 IN 1 (VERSION 2)

£29.95 • Moonstone Computing • 041 941 3120

Useful utilities aimed mainly at PCW to PC/MSDOS file transfer. Can manipulate PCW files and discs. Sometimes slow in copying, but an excellent way of carrying out the functions. The only package to collect all these functions in one program. Formatting, which comes with a verify option, is very fast. Easy to use, and user friendly. Far more amenable than the original CP/M commands.

### PLUSES • MINUSES

- ▲ Easy to use
- ▲ Formats very quickly
- ▲ Good documentation
- ▲ Not too expensive
- ▼ Copying is slow

## XFORMAT2

£9.95 • Moonstone • 041 941 3120

A handy utility to give more space on a disc. Space is created during disc formatting; the program is used in conjunction with CP/M, and gives extra room on both A & B drive discs.

### PLUSES • MINUSES

- ▲ 19k extra for A drive discs
- ▲ 78k extra for B drive discs
- ▲ 32 extra A drive entries
- ▲ Very cheap for the benefits provided
- ▼ Can't copy and format at the same time

## FOREWORD

£44.95 • Software Imperative • 0225 425315

A text/ideas pre-processor, essential for anyone producing lengthy, structured pieces of work. You can build your document, moving and inserting blocks with just one keypress (no block definition required). Fast wordcounts and Find and Replace searches of either 'hidden' or 'shown' text units. Drop down menus.

### PLUSES • MINUSES

- ▲ Versatile Save options
- ▲ Printout facility
- ▲ Works with 'foreground' option

## PCW TOOLKIT

£24.95 • Moonstone Computing • 041 941 3120

A user-friendly data recovery package for the PCW. Provided you can find the contents of the damaged file, roll out a new one, sector by sector, on M using PASTE.

### PLUSES • MINUSES

- ▲ Perfect for the complete novice
- ▲ Clear, confidence-boosting manual
- ▲ Can recover data varying in amounts from a few bytes to a complete disc.

## PRO-PERFORMER

£59.90 • Electromusic Research 0702 335747 • 8000s only

The only real musical add-on for the PCW. Easy to use software runs on CP/M, has a wide variety of powerful features and is icon-driven. Sophisticated recording facilities. You can save compositions as tracks, songs or performances.

### PLUSES • MINUSES

- ▲ Icon-based screen
- ▲ Lines can be recorded independently or in an arrangement
- ▲ Punch-in editing facilities
- ▲ Slow recording/ fast playback facility
- ▲ Step-time recording for strict in tempo lines
- ▲ Tracks can be looped (made to repeat)
- ▼ Manual glosses over arrangements
- ▼ Can't edit notes individually
- ▼ No musical notation anywhere

## JOB ESTIMATING & PRODUCT COSTING

£99.90 (plus VAT) each Cornix Software • 0243 219969

Programs aimed at helping small businesses keep track of costs. It breaks down costs for a product or job into a series of costing lines with quantity and price per component. Analyses profit margins and gives customer printouts.

### PLUSES • MINUSES

- ▲ Excellently-written manuals
- ▲ Changes in material costings instantly reflected in all quotes
- ▲ Neat way of doing on-the-spot quotes
- ▼ Can't add new components to a description

## TEMPDISC 8.2

£21.00 • Thurston Techniques 0395 277496 • 8512s only

Ready-made templates for use in LocoScript.2. Find the template to suit your requirements and fill in the details. Vast selection of borders for personalising labels and envelopes.

### PLUSES • MINUSES

- ▲ Has files for LocoMail's invoicing facilities
- ▲ Vast range of templates available

## BRAINSTORM

£29.99 • Brainstorm Software Ltd • 0895 677845

Improved version, for easier use on the PCW. Works as an 'ideas processor'; you throw your ideas in any order and then use the program to rearrange them and impose a structure. Printed manual now comes with the package.

### PLUSES • MINUSES

- ▲ Encourages structured thinking
- ▲ Versatile; many different editing facilities
- ▲ Results can be fed into a word processor



**SUPER-LINDEX****£14.95 • Festival Computing • 0274 613300**

An indexer for LocoScript, which can provide not just the name, but also the 'Edit Identity' description of the file. Works with CP/M files, too. Can import data into LocoFile.

**PLUSES • MINUSES**

- ▲ Screen as well as printer output
- ▲ Can be turned into LocoFile data
- ▲ Easy to use, and flexible
- ▼ Documentation poor

**FORMS BOX COMPENDIUM****£19.95 • Disc Design • 0473 625471**

Fully compatible with LocoScript 1 and 2, this disc provides 70 different kinds of forms for home and office use.

**PLUSES • MINUSES**

- ▲ Very easy to use
- ▼ Will only print out on A4 size paper

**POOLS MASTER****£19.95 • Intraset Ltd • 02572 76800**

Helps you select the numbers to cross on your pools coupon taking its recommendations on the recent form of each team or simply on the basis of sequence prediction (numbers that provided draws in the past).

**PLUSES • MINUSES**

- ▲ More accurate than the newspaper pundits
- ▼ Entering form results every week is tedious

**LOCOFONT I****£29.95 (plus VAT) • Locomotive Software (0306 740606) 8000s only**

New fonts for LocoScript. Good selection of 'handwritten' styles. The Roman and Standard fonts are more practical. The new characters reproduce well. A further six fonts are available, including Old English and flowing script, on LocoFont II for £14.95.

**PLUSES • MINUSES**

- ▲ Eight new fonts, one coming for free
- ▲ Each style supports accents and characters.
- ▼ Can't mix styles in one document
- ▼ Limited to a 16 dot pattern

**PS HEADINGS****£11.95 • Orb Systems • 081 690 8534**

Updated version with major improvements in speed. A must for Protex users who need high quality, large print for letter headings. Can alter details such as shading, underlining and triple-strike printing.

**PLUSES • MINUSES**

- ▲ Easy to use
- ▲ Range of styles
- ▲ Good manual
- ▼ Only one font (although in two sizes)

**GILLIGAN'S GUIDE****£29.95 - 49.95 • NG Gilligan • 0629 56347**

A geographic information program based on the Ordnance Survey system. Given a 15 square mile area; it will list all the places included on the map in alphabetical order with their grid references. Gives information about the sites and will locate them on the map. Gives details on sites of special interest.

**PLUSES • MINUSES**

- ▲ System can be interrogated in a number of interesting ways
- ▲ Breaks sites down into areas of specific interest
- ▲ You can commission your own made-to-measure guides

**STAR TRACK+****£19.95 • Discovery Software • 081 455 9962**

Updated version, allows you to plot on screen all 88 constellations and about 600 stars, as well as the moon and planets. You can view from

any point on the globe, and at any time from 1000 to 2999 AD.

**PLUSES • MINUSES**

- ▲ Helpful practice exercises in good manual
- ▼ No print option
- ▼ Screen display a little on the small side

**POCKET DATADATE****£19.95 • A4 Ideas • 0249 815082**

Invaluable for date-related trivia fans. Works under LocoScript 2, and even prints filofax-sized text. Ideal for quizmasters

**PLUSES • MINUSES**

- ▲ Program recently updated
- ▲ Very informative
- ▼ Only works with LocoScript 2
- ▼ Documentation currently on disc

**PCW SUPERDOS****£29.95 • Encyclosoft • 0270 811890**

Fills the gap between the friendliness of LocoScript and sparsity of CP/M. Has the ability to copy multiple files at once and can back up an entire directory.

**PLUSES • MINUSES**

- ▲ Printable 'notepad' facility
- ▲ Makes CP/M less daunting to use
- ▼ Need to leave SuperDOS for some functions

**FACTOTUM****£14.95 • Tudor Systems • 0622 861775**

The combination of LocoScript 2, LocoFile and LocoMail gives access to an catalogue of data. It has a diary with special date reminders, address and telephone list and tax planner.

**PLUSES • MINUSES**

- ▲ Works from LocoScript
- ▲ Very efficient letters section
- ▼ Poor presentation
- ▼ Won't work with an unexpanded 8256

**SUPERZAP****Public Domain • Various suppliers**

A disc editor with a difference. One key commands and menus for easy operation. You can examine the structure and contents of the M Drive. Lack of print function is irritating

**PLUSES • MINUSES**

- ▲ Simple one key commands
- ▲ Fast 'find' function
- ▲ Menu driven
- ▼ No copier
- ▼ Numbers can only be entered in hex

**DATADIARY****£19.95 • A4 Ideas • 0249 815082**

More PCW-generated diary inserts for use at home or in the office. The program works from within LocoScript. Inserts feature year to calendars, month at a glance planners and page a day formats. Now includes the DATAWEEK package - a new, fully indexed week-to-a-page LocoFile application.

**PLUSES • MINUSES**

- ▲ Buy it at any time of the year and you will be supplied with next 12 months' supply
- ▲ Pre-prepared 9512 version available
- ▲ A solid, no-frills product that's easy to use

**INVESTOR II****£39.95 • B & BB Software • 0437 721690**

Records and analyses the ups and downs of up to 600 shares on the stock market. From the trends displayed the health of the whole market is calculated and future moves predicted. You can keep track of your own shares and you are given advice on what to do with them. A good investment all round.

**PLUSES • MINUSES**

- ▲ Records share-holdings, dividends and cash accounts
- ▲ Dividend printout for tax purposes
- ▲ Four methods of share price analysis
- ▲ Calculates capital gains tax liability
- ▼ Graphs are small

**MINOR SHORTCOMINGS IN MANUAL PERSONAL TAX PLANNER****£24.95 • Digita International • 0395 270273**

Simple program which stores relevant details of your year's tax affairs and prepares your tax return. Can, for example, find out whether married couples would be better assessed separately or not. Personal Tax Planner is updated every year, following the budget.

**PLUSES • MINUSES**

- ▲ Needs a minimum knowledge of the tax law
- ▲ Keeps all your tax details in one place
- ▼ Limited application - only used once a year
- ▼ Program updates cost £10

**KNIFE PLUS****£19.95 • Hisoft • 0525 718181**

An essential tool for retrieving data from corrupted discs. Knife Plus will copy all uncorrupted sectors on to a fresh disc which can be patch up without risking the original.

**PLUSES • MINUSES**

- ▲ If boot sector damaged, will copy good boot sector on to disc
- ▼ Requires knowledge of basic disc structure
- ▼ Manual not written for beginners

**WISE ONE****£34.95 • Swallowsoft Publications • 0420 63793**

An expert system. You input rules and information and it becomes an 'intelligent' program which can, for example, do simple diagnoses according to symptoms you type in.

**PLUSES • MINUSES**

- ▲ Power to be genuinely useful
- ▲ Elementary arithmetic
- ▲ Help screens can be set up for the user
- ▼ Obscure way of writing rules - need programming instinct
- ▼ Manual dry and academic

**FLIPPER 3****£29.95 • Software Imperative 0225 425315 • 9512/8512 only.**

A stronger version of an invaluable PCW tool. Given the right amount of space, you can flip between eight different environments, picking up each in exactly the same place as you left it. Menu-driven for greater user comfort.

**PLUSES • MINUSES**

- ▲ Boots machine and then adds environments
- ▲ Can flip between environments in 2 seconds
- ▲ Very good documentation
- ▲ Works with most CP/M programs, LocoScript and BASIC
- ▲ Can 'save' current environments to disc
- ▼ Be careful of state of printer and disc drives when flipping.

**SUPER TYPE II****£14.95 • Digita International • 0395 270273**

Modifies the fonts used by the PCW printer. SuperType has 4 'business' and 'novelty' fonts. It directly alters the relevant files for LocoScript or CP/M, so you only need run it once.

**PLUSES • MINUSES**

- ▲ Once installed, you can forget it's there
- ▲ Genuinely useful range of fonts available
- ▲ All of LocoScript's print size and style options still work
- ▲ Can't mix fonts in the same document

**DAATAFAX****Basic version £29.95 (with Microfile £39.95/with mouse £69.95) • Kempston Data • 0234 855666**

Used with personal ring-binder, it keeps track of names, addresses and appointments. Prints out data to fit the average organiser.

**PLUSES • MINUSES**

- ▲ Flexible and easy to use
- ▲ Saves buying inserts
- ▼ Keeping it up to date is tedious

**DHCP 12-TRACK SEQUENCER****£89.99 • DHCP • 0440 61207**

Add-on 'recording studio' for the PCW, consisting of MIDI interface and software. 12-track polyphonic capacity

**PLUSES • MINUSES**

- ▲ Fun to use
- ▲ Can cope with quite advanced instruments
- ▲ Cheaper than its competitor
- ▲ Tracks can be bounced to enable several tracks to all be put into one
- ▲ Looping can start/end at any bar
- ▼ Manual is skimpy
- ▼ No editing without re-recording whole track

**THE COMPOSER'S PEN II****£87.33 (MusicPad £23.44) • Composit Software 0952 595436**

A sophisticated program to write musical manuscripts, complete with time signatures, key signatures and other notation. Changes to the manuscript are simple and it can transpose music into different keys. MusicPad is the cut down version.

**PLUSES • MINUSES**

- ▲ Good print quality
- ▲ Allows multi-part compositions
- ▲ Complete range of musical notation
- ▲ Transposes from key to key
- ▼ Slow in use

**DTP**

Desk Top Publishing packages combine the manipulation of text and graphics. In reality, they tend to concentrate on the development of pictures rather than text, simply because text can usually be imported from a word processor in an already finalised state, to have its appearance rather than its content adjusted.

**THE DESKTOP PUBLISHER****£81.95 (including mouse and interface) • Database****0625 859444**

Value for money. Graphics and text boxes can be easily moved around and page layout is clear. You can edit text in the program, using LocoScript-like commands to set bold and italics. Good range of fonts and graphics.

**PLUSES • MINUSES**

- ▲ You can edit articles to fit the space
- ▲ Boxes and general layout easy to manipulate
- ▲ Works with three mice or with the keyboard
- ▲ Good range of fonts and graphics, and you can design your own
- ▼ Can't fix size of text boxes
- ▼ Headlines can look a bit jagged

**MICRODESIGN II****£62.00 • Creative Technology • 0889 567160**

The ultimate DTP package for sheer printout quality. Treats words and graphics as being equally important - hence the program's 'integrated page processor' tag. Runs on all machines with high quality results.

**PLUSES • MINUSES**

- ▲ Has good range of printer drivers
- ▲ Easy and fun to use
- ▲ Excellent text-editing facilities

**LATE EXTRA****£19.50 • Exemplar Designs • PO Box 683, Bath, BA1 1XU**

A Stop Press add-on consisting of a collection of 11 fonts that cover the range of type styles and sizes needed to create a balanced page.

**PLUSES • MINUSES**

- ▲ Good range of 11 complementary fonts
- ▲ Can adapt template for own use
- ▼ Time-consuming
- ▼ Text needs reducing for best results



# Cut Printer NOISE by up to 90%

Noisy Printers are a major source of stress and will significantly reduce the efficiency of you and your colleagues.

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## NEW RANGE OF DRIVES FOR 8256, 8512 OR 9512

Our 3.5" Add On Disk Drives offer the best value and keep your options open by being able to transfer it to another computer if you change your computer. For £10.00 extra you can have a 1.44 Meg drive which although it will not work 1.44 Meg on the PCW could be invaluable if you later upgrade to a PC/AT.

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**DATADUAL 8 AND DATADUAL 9:- Dual Action Drive A or B 3.5" Disk Drive. It's a 'B' Drive and a spare 'A' Drive in one for just £120.00**

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For a two drive computer, by using three switches you can use the computer as 2 internal 3" drives, or as drive 'A' 3.5" and drive 'B' 3" or drive 'B' 3.5" and drive 'A' 3". You can copy a 3" 'A' disk to 3.5" or vice versa or copy a 3" 'B' disk to 3.5" or vice versa. A side select switch allows 8000 series users to use both sides of a disk.

To fit, remove the back - expose the rear of the drives - unplug three plugs and plug in four - replace the back - no cutting, filing or soldering.

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# Tipoffs

*November was the month Guy Fawkes saw fireworks - the same sort of glaze will come over your eyes when you see some of the hints in this month's TipOff pages. Rockets, Roman candles, Catherine Wheels - and some sparklers too - in the form of tips on LocoScript, BASIC, Protex, CP/M, MicroDesign and much more besides!*

*And if you fancy seeing your tips light up the sky, why not send them off to us at Tipoffs, 30 Monmouth Street, Bath BA1 2BW - and don't forget that that is Freepost.*

*So break out the Hot Dogs, stack up the bonfire, light the blue touch paper and stand well clear for an amazing, spectacular, pyrotechnic display of PCW brilliance.*

## Shadow dropping

In Brian Pearce's Tipoff in your September magazine, he showed how to make a 'dropped shadow' using TWEAK. As I have not got TWEAK, I tried to do it using MD2's own facilities. My results seem to look exactly the same as Mr Pearce's!

1. Type in your text in the design screen section of the program. Choose a typeface that is big and chunky. When starting a new line type [SHIFT]+[ALT]+DOWN CURSOR once, and [SHIFT]+UP CURSOR twice to position the text.

2. Now rewrite your text, using the same rules, but in OUTLINE mode ([EXTRA]+[8]).

3. Now follow Brian Pearce's steps. But when trying to put the uninverted image on top of the inverted image, try

8000  
Plus!

The proof of the pudding. A remarkable improvement on the basic 'boot' typeface, even when it is printed at this small size

using 3 steps up and 3 steps across.

4. Once you have followed step 6, the writing may need a bit of ZOOM work. Tom Everest, East Grinstead.

## Two columns more

I have devised a method of setting up and printing out two columns of text using the PCW 9512 and LocoScript 2 without feeding the paper through twice or resorting to LocoFile.

Although the method requires a little more observation of the cursor and a reasonable degree of accuracy (to avoid too much editing) it is relatively simple.

Set the left hand margin at 1, and the right-hand margin at 100. Set a simple tab at 55.

Key in the left-hand column of text, inserting a manual [RETURN] at about 45 at the end of each line.

For the right hand column, move the cursor to the [RETURN] symbol at the end of the left-hand line, and press [TAB]. At the end of each line (you should type up to, or as close as possible to the right-hand margin without causing word wrap) in the right-hand column press [EOL], then [TAB] and continue keying the text.

When you come to print out, be sure to select "Landscape" for this type of layout.

Mrs B A Hawkins, Reading

*8000 Plus: There are other ways of printing columns in LocoScript, but this is one of the simplest. The only problem is that it is very difficult to edit the text once it is there.*

*You could use the same process for the 8000 series. Of course, you won't be able to print out across the page, so select sensible margins, and put the central tab at about 48. And don't select the 'Landscape' option - your printer cannot use it!*

## Yes you Scan

As a budding artist, do you have problems printing your scanned copy?

This is the secret.

Having scanned a picture, you should then save it on your 'picture' disc and exit to CP/M and load "Master Paint". Load your scanned picture into "Master Paint" and edit it until the picture then fits into the visible screen. Resave the picture on your 'picture' disc, exit to CP/M, load "Master Scan" and you are ready to print the picture.

This method gives a near true size and shape of your scanned image. V White, Basingstoke

## Wheel Progress

In your answer to Ian Morris' query (Wheel Power, issue 60) you stated that there was no way of mixing two types of print wheel in the same line. There is, and this is how you can go about achieving it.

When you come to the word in your document where you would like to change type style:

1. Leave a blank in the sentence equal to the length of the word.
2. Press [F4] and change the line spacing to zero.
3. On the following line, fill in the missing word exactly below the blank and then press [F4] to return to the original line spacing.

When it comes to printing out the document the procedure outlines in issue 60 should be followed - ie, press the [PTR] key while the printer is printing out the line with the blank space in it, and when it stops change the wheel. Pressing [EXIT] allows the printer to continue.

However, since only one word is wanted in the new type face, the [PTR]

```

SYSTEM /DOCUMENT.000 Editing text. Printer idle. Using M:
Layout 1 P112 LSL CH+0 LP6 Page 1 line 1/94
f1=Actions f2=Layout f3=Style f4=Size f5=Page f7=Spell f8=Options EXIT
(+Pitch12)When you want to highlight something in LocoScript, and you've only got a
9512, it would seem to be something of an impossibility. But it is not that
difficult - all you have to do is type a line and leave out the word you
want to emphasize, then fill in the gap by typing [JLS 0] and plug the gaps
left in the line above. Finish that line with the command [JLS 1] to go
back to normal printing. If you want to add codes, you can - but make sure
that you still use the right number of characters in normal script. Check
by turning off the codes. Then comes the tricky bit - changing the wheels!

```

You can mix typestyles on the 9512 by printing the same line twice, leaving a gap the first time, and plugging it the second time

When you want to highlight something in LocoScript, and you've only got a 9512, it would seem to be something of an impossibility. But it is not that difficult - all you have to do is type a line and leave out the word you want to emphasize, then fill in the gap by typing [JLS 0] and plug the gaps left in the line above. Finish that line with the command [JLS 1] to go back to normal printing. If you want to add codes, you can - but make sure that you still use the right number of characters in normal script. Check by turning off the codes. Then comes the tricky bit - changing the wheels!

The final print out is worth the trouble. You could even mix different language wheels

key must again be pressed before the printer finishes typing it out and the original wheel put back. [EXIT] to

resume printing. Takes some concentration, but the effect is great!  
Neil Hanley, Wood Green, London



## Catch phrase

When I settle down to write in LocoScript, I always find that I need the same specific words and phrases many times throughout the document. Therefore it's best to [COPY] each word or phrase you know you will type many times, then [PASTE] them back at the right moment. It's amazing how much time you can save.

Joe Unwin, Hastings

**8000 Plus:** And if you're going to use them in more than one document, why not save them to disc using the 'Save Phrases' option if you are using one of the LocoScript 2 versions?

## Protext numbers 1

I do a lot of report writing on my PCW using Protext. This involves comparing monthly results - and having to check that I haven't duplicated in September what I said about February!

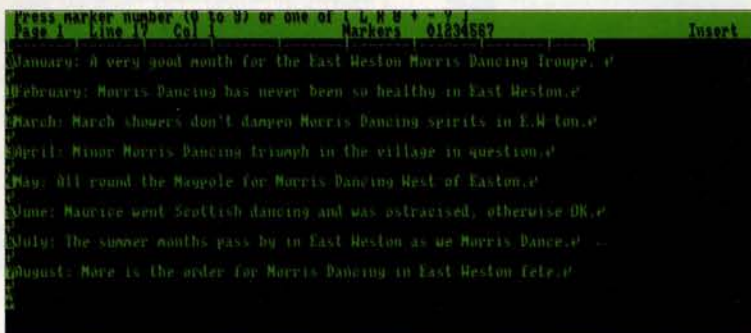
Protext has a very good way of jumping around the a document to check these references - number markers. You can introduce them into the text by typing [ALT]+@, followed by a number. Pressing [ALT]+[+] (that's the plus key with the square round it) will automatically find the previous number up the document, and [ALT]+[-] the next one down the document, regardless of what order the numbers actually come in.

However, if you want to find a

particular number (if I've marked February with '2', and I'm editing September), all you have to do is type [ALT]+@ followed by 2, and the screen will automatically be redrawn with that number and its associated text in the centre. You can keep a track on which numbers are current by glancing at the top of the screen - all the markers in use are listed there. Simply use the 'delete' key to remove them from the text.

Much quicker and less frustrating than using the [PAGE] or [ALT]+cursor keys - and another reason why I think Protext beats LocoScript hands down.

Nigel Baxter, Carlisle



You can add number markers into your text and move around it much faster, pinpointing accurately the places that you want to move to

## Make a date

Q: How can I date stamp my files?  
Susan Goodall, Bradford,  
West Yorkshire

**8000 Plus:** CP/M isn't particularly helpful when it comes to this, but if you are prepared for a bit of fiddling, you will find that it is possible.

First you will have to prepare the directory of your disc, to open it for date stamping. Then you will have to set the details that you want recorded. Finally, you will have to set the date.

1. Boot up CP/M.
2. Put the side of your CP/M disc which contains the file INITDIR.COM into drive A:. If you have two drives, put the disc whose directory you want set into drive B:. Type (however many drives you have) **INITDIR B: [RETURN]**. Single drive system owners will have to follow the on-screen instructions about disc swapping. Answer 'yes' to the question which the computer asks.
3. With the drive initialised, find the side of your CP/M discs which contains SET.COM. Decide whether you want your files stamped by access date (which records when the file was last used), or date of creation. You can also have the file marked with its latest update time if you wish, in combination with either of the above. This records when the file was last altered, rather than simply when it was

last used. Type **SET B:[access=on,update=on] [RETURN]**, substituting **create=on** for the access command if you so wish.

4. To check it is working, log onto a disc with DIR.COM on it, and type **DIR B:[full]**. You should see the that space has been provided for the extra attributes on your B: disc.

5. To set the date, put the disc containing DATE.COM in the drive, and type DATE without [RETURN] followed by the date in the format mm/dd/yy. You can add the date in the format hh:mm:ss. For instance: **DATE 10/20/91 10:32:00**. Alternatively, use the DATESET.BAS BASIC program published in last month's 8000 Plus. It would be worth making either of these part of your PROFILE.SUB file, so that you are reminded to set the date every time you turn the machine on.

6. Now every time that you create, access or update a file, there will be a permanent record of it.

7. If you want to use the date stamp facility over all your discs, you will have to use INITDIR to initiate each one, and then SET to make sure that each will give you the same piece of information about the disc.

Unfortunately, date stamping is not possible with LocoScript files - LocoScript doesn't keep track of the date and time, and has no facility for putting them on to the disc, either.

## Easy printer defaults

I'm sure John Eggeling's solution to the printer defaults problem is much more elegant than mine, and faster. But for those who (like myself) are a bit scared of SID.COM, here is an idiot solution that works well.

Boot CP/M, and on the A: prompt type **SUBMIT RPED [RETURN]**. You will have to make sure that you have SUBMIT.COM on the relevant drive. The screen will respond (in two stages) telling you that you are into the BASIC small file editor RPED. Press [f1] to edit existing file. Type in **PROFILE.SUB [RETURN]** [RETURN]. When you get PROFILE.SUB on the screen, you will see that each line is preceded by a < prompt. Arrow down to below the last line, type <[RETURN] then type **paper c f66 g2 16 d [EXIT][EXIT]**. From now on, every time that you boot CP/M you will automatically be informed that you are set up for continuous stationery.

If you get an error message when you press [f1], press [f3] instead, call the file PROFILE.SUB, and just put the one command into it - the line **paper c f66 g2 16 d**.

Alternatively, you could just use the command **paper c f66 g2 16 d** from the A> prompt, at any time.

Tony Cooper, Pierric, France.

## Protext numbers 2

A couple of points about your guidance for Protext users in your birthday issue. There is no need to go into CP/M to display all the files on your disc. Create an EXEC file saying: **cat 0|13| cat 1|13|cat 2|13|..** and so on, through to **...cat 13|13|cat 14|13|cat 15|13|**. A drive letter can be included (eg cat 1b etc). I keep three such files in the M: drive: this one, called x, and two others called a and b. Then x m:x [RETURN] reads the default drive; the others read a: and b: drives respectively. The display can be halted by pressing [PTR] and resumed with [EXIT].

"Loco to Protext" (p66) omits to say that you can get lists of files on any user group (even any drive) without leaving the one you're in, simply by typing e.g., **cat 3a [RETURN]** to get files in group 3, drive A:. Likewise, you can use COPY (the command, not the [COPY] key!) to save a file anywhere on the disc.

Its also very easy to make up and use your own database files with Protext's mailmerge facility. Just make records without any commans; use accents for apostrophes or quotes, and stick to the >RV command.

And hey, Protext offers you two ways to inspect a document: the output from PS is often easier to read than which is produced by TYPE.

Rev John Peck,  
Woodbridge, Suffolk.



## Basic positions

I wonder if you could answer a few questions for me:

- 1) In BASIC, how can you get a program to start on a blank screen.
- 2) Again in BASIC, I would like to put the message part of the line 'INPUT "What is your name ";A\$ in the centre of the screen.
- 3) And I would like to put to then centre the message "HELLO ";A\$, depending on the length of the name.

Craig Amy, RAF Bruggen.

**8000 Plus:** 1) Use the line **PRINT CHR\$(27)+"E"**. If you want to move the cursor to the top left hand corner

at the same time, add **+CHR\$(27)+"H"**. Lots of programmers turn this into a 'string' - or a series of characters: **cls\$=CHR\$(27)+"E"+CHR\$(27)+"H"**, and then put **PRINT cls\$** every time they want the screen cleared. 2&3) This program will do both:

```
10 cls$=chr$(27)+"E"+chr$(27)+"H":
print cls$
20 def fnat$(x,y)=chr$(27)+"Y"+chr$(
32+x)+chr$(32+y)
30 print fnat$(15,40):INPUT "What is
your name ";A$
40 L=LEN (A$):y=(84-L)/2:print cls$
50 print fnat$(15,y)"Hello ";A$
```

Line 20 is the best way of positioning text in BASIC - type this at the top of the program, and then replace x and y with the number of rows DOWN the screen and the number of columns ACROSS that you want printing to start. In line 30, it's 15 rows down, and 40 columns across.

Line 40 uses LEN to find out how long A\$ is - and then uses that information to position the message in the middle of the screen. The number 84 comes from the width of the screen (90) minus the length of "Hello ". Now you can simply add the length of A\$ and divide by 2.

## Protex numbers 3

Have you ever had to produce a sequence of text involving consecutive numbers, like this:

Number 1:  
Number 2:  
Number 3:  
Number 4:  
...up to...  
Number 100:

Protex users have an easy way of producing those numbers automatically. First make a document consisting of 100 colons, each on a separate line (use blocks and the [COPY] command, of course!).

Then go into command mode and type **NUMBER [RETURN]**, followed by **A** for 'add'. Give the 'first line' as 1 and the 'line increment' as 1. You now have a document looking something like

1:  
2:  
...up to...  
100:

Just use [EXCH] to change all occurrences of [SPACE]-colon to just colon (specify 'agc' as options), then use it to change occurrences of [RETURN]s (entered as exclamation

mark-full stop) to [RETURN]-'Number'-[SPACE] (entered as exclamation mark-full stop-'Number'-[SPACE]) again specifying 'agc' as options. Saves a lot of time!

Basil Pigg, Bath

**8000 Plus:** Just as time saving would be this mail merge routine:

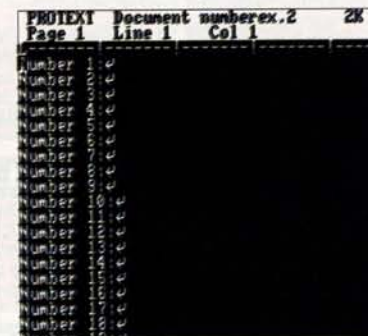
```
>wf m:numbers
>sv number=1
>rp
>wf on
Number &number&:
>wf off
```



```
>sv number=number+1
>sv number=number[W1]
>un number=101
```

Type this in - make sure you are accurate - save it as 'numbgen', and then go into command mode and type **ps** (or **p** if you want a print out now). You'll see the numbers being written to a file called 'NUMBERS' on the M: drive. Copy this to disc and use it whenever you want it.

Regulate the number of numbers (if you see what we mean) by changing the 101 in the last line of the listing to the correct number plus one.



Can you tell the difference? Both methods brought about very similar results.

## Diary on Disc

I have organised my 365 page diary (issue 54, March 1991) into a 12 month diary, with each month having a file to itself. All you then have to do is highlight the correct month from the disc management screen, press **E** for Edit. When the document arrives on screen press [F5] type the number of the day you require and up comes the selected day for that month.

To make the diary, load LocoScript (I am using LocoScript v2.28) and insert the disc with DIARY.91 on it into drive A:, press [F7], then create 12 files called January.91 to December.91, in group 1. Now highlight the file DIARY.91, and press **E** to edit the file. With Tuesday 1 January at the top of the list, press [COPY] and mark to the

latest date in that month, press [CUT] and select a block number

Press [EXIT] and select the 'Finish Edit' option, which will re-save the DIARY.91 file, minus the January section. Erase the DIARY.91 Limbo file to clear up your disc.

Highlight the JANUARY.91 file, press **E** and then [PASTE] in the block which you have just saved. Save this new file to disc and again erase the Limbo file - this time the JANUARY.91 limbo file.

Repeat this process for every month, and there you are - an easily accessible diary on disc, very easy to use and very cheap - and it will only take you a few minutes to put together!

Harvey Clayworth, Mansfield

## LocoSpace

Sometimes my LocoScript 2 refuses to print out, telling me that the printer and document do not match. I can't work out what that means!

E Brown, Cambridge

**8000 Plus:** It sounds as though you have not got enough room on your drive M:. When it boots up, LocoScript throws several printer files on to the M: drive, and uses these to print from. If it can't find them, it gets confused, and claims that neither the character style or the character set are valid.

It could be that you are using Flipper 3 - I've reproduced the effect in this way - and the best solution is to redefine your environments so that LocoScript has more room.

## Life after BASIC

A few issues ago you published a way to run a BASIC program from CP/M, by simply adding the name of the program after the BASIC command in CP/M (eg BASIC GAME1). Is there an equivalent way to run another CP/M program from BASIC? I tried putting the name of a program after BASIC's SYSTEM command (eg SYSTEM LOGO) but it just said syntax error.

Andrew Dornan, Fareham

**8000 Plus:** No, at least, no simple way. The best way would be to have a SUBMIT file that included the BASIC program and the program that you wanted to run after it.





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## Designer lines

When using MicroDesign 2, there must have been occasions when you have wanted to print out a notice of a special size, so that it would fit exactly into a photograph frame, or similar.

There is a simple way to arrange this, but make sure you are in the no.1 format (256k A4 upright) - the default format. If you're in the wrong format, use the NEW option to get to it.

Go to the 'Design' section, and cursor to the top left hand corner of the screen. You will find that the cursor co-ordinate figures at the bottom right hand corner of the screen are at "0". If you now draw a line across the page from here until the left hand of the two co-ordinate numbers changes to 120, and then draw a line down the page until the right hand co-ordinate changes to 109, you will find that when you print out, both these lines are exactly one inch long.

Unfortunately, when you press the cursor key and space bar at the same time to draw the line, the cursor co-ordinate figures at the foot of the screen disappear, so you will stop drawing the line for a few seconds, so that you can check how far you have got. You can, of course, draw lines of any length that you want using multiples and fractions of the figures which are given above.

You can actually start drawing the figure anywhere on the screen, as by pressing [EXTRA]+0 (the number nought!) the cursor co-ordinate figures

at the foot of the screen will both change to zero, and make your life a whole lot easier!

In case you wish to operate in any of the other formats, full details are

given below - I have included metric measurements as well.

Note that the figures given for the sideways formats are as they appear on the screen, ignoring the fact that the

	Across Page		Down Page	
	1 inch	1 cm	1 inch	1 cm
256k A4 upright	120	50	109	43
256k A4 sideways	109	43	121	48
256k strip	240	95	217	85
64k A4 upright	60	24	54	21
64k A4 sideways	54	21	60	24
64k strip	120	47	107	43

This is a box  
exactly 2  
inches by 2.

paper is lying sideways.

I hope that this 'TipOff' will be of service to some of your readers.

Frederick Wren, Eastbourne

*8000 Plus: We're sure it will be!*

*There are a number of uses you can put this to - leaving room for a particular picture, spacing text on a page, checking the size of characters as well as the ideas suggested above.*

Now you can determine exactly how big a box is going to be before printing out.

## LocoSearch

Can you help me. I am using a PCW 8256 and LocoScript 2. I have amassed lots of related files in the same group on a disc - can I use LocoScript 2 to cross reference the files, or use the find command to search a disc for a particular word or paragraph?  
David Cheeseman,  
Wootton Bassett

**8000 Plus:** You can't use LocoScript for this, unless you want to open each file individually and then do a [FIND] operation. However, there is a Public Domain program that will do what you want. It is called SUPERZAP - give PCW World (0834 66269) a ring to talk about it. Alternatively, why not type in David Gregg's VOYAGER.BAS program, published in the Listings pages of July's 8000 Plus.

## Easy PC printing

According to the LocoScript PC handbook, it is not possible to use the PCW 8256 printer with the PC. However, I have managed it.

Firstly, connect the PC and PCW with an RS232 and serial cable. Secondly, the PCW must be prepared from CP/M with the command SETSIO 150 h off. On the PC, install and integrate a printer, defining it as Epson FX-80 (call it PCW if you like) and prepare it for the serial port, at 150 baud.

Finally, with your CP/M disc still in the PCW, type PIP LST:=AUX;

and you can use the PCW as a printer for LocoScript PC.

To interrupt PIP, you can press [STOP] on the PCW, and then send something to print on the PCW - for instance, go into Direct Printing on the PC and send a space - and an error message will appear, which will clear PIP and leave your PCW ready for its next CP/M task.

Rafael Pla-Lopez, Valencia.

**8000 Plus:** This tip does work - but it's a bit temperamental. You have to do

everything in the correct order, and make sure that there is paper in the PCW printer. Make use of the PC's [F9] 'Resume printing' option if it fails to function straight away.

We could persuade the PCW printer to obey the bold and italic commands, but not the double size ones - and, more importantly, it didn't print in high quality. Nor could we persuade it to quit, even using Direct Printing.

On the other hand, Mr Pla-Lopez had managed it, so it's possible.

## Star performance

In the August issue of 8000 Plus, Bill Weeks of Cavalier Software stresses that the Star LC10 printer is "the worst printer I could have selected to use CP/M programs". I have a Star LC 24-10 printer linked to my PCW9512. Can I use MicroDesign 2 with this printer with/without problems.

Paul Wigmore, Newcastle upon Tyne

**8000 Plus:** Yes, and without problems. In fact Creative Technology told us

that it's the best 24 pin dot matrix printer that they have used - especially when printing in colour. And to assure any LC10 owners out there, they also say that they have never had any problems with that printer, either - although they stress that they can only speak for their products.

Of course, they still say that the best possible printer for MicroDesign would be either a laser jet or bubble jet, but in the meantime, it doesn't look as though you're going wrong.

## High Octave

There is no mention in the MusicPad manual of octave transposition. However, the program can be made to do it quite easily.

Press [f6] and follow the usual procedure until the key signature menu appears. Then cursor down to the key that the passage to be transposed is in and press [RETURN]. The music will now be automatically transposed up or down an octave.

Goeff Price  
Newcastle, Staffs



## Key sets

I usually, but not always, use Protext when I boot up CP/M. Typing "Protext" is a chore, though - is there a way of setting up the computer so that I can press just one key and get Protext?

Harold Barnes, Leeds

**8000 Plus:** Yes, there is. Load Protext, and type PROG to get to program mode. Now type this in: E #81 "PROTEXT^M" 02 N ""^#81"" and save it as NEWKEYS.PRO. If you have a PROFILE.SUB file on your start up disc load that into Protext - if not create a new file and save it as PROFILE.SUB - and add the line to it: SETKEYS NEWKEYS.PRO. Save this back to your Start of Day disc. Make sure that your Start of Day disc also has SETKEYS.COM and SUBMIT.COM on it. Now reboot your system with CP/M. If you want Protext, make sure the Protext disc is in the drive and press [f1]. If you don't, then continue as normal. Whenever you want Protext, and you are at the A> prompt, all you now have to do is hit [f1].

## SID's Security

Here's an alteration that you can make to LocoScript 2 using SID to print yourself a message on boot-up - and a message which won't affect the Locomotive and Amstrad credits!

1. Boot up CP/M
2. Run SID
3. Put your LocoScript start of day disc in the A: drive, and at the # symbol type **ra;j228loco.ems** [RETURN]
4. After a short time the # symbol will return. Type **d0b70 0bb0** [RETURN].
5. On the screen you will see an array of numbers in the centre of the screen, and text down the right hand side of the screen. Look for the the start of the text which says 'For the latest information, see the document "READ.ME"'.
6. Counting from the left of the text column, count the number of letters or symbols to the start of the word "For". Count across the same number in the central column, and make a note of the code you land on - you should be on the **cr 46**, which is the hex number for "F". On version 2.28 of LocoScript, this is the first number in the column.
7. At the # symbol type **s0b70** [RETURN].
8. SID will reply with the number and the code, the same code 46 that starts the message. Now type " followed by whatever message you wish to enter. The only limitation is that it must be exactly the same length as the message it is replacing - in this case, 53 characters (letters and spaces). Use extra spaces to make up any shortfall in your message. Press [RETURN].
9. SID replies with another code: press a full stop and then [RETURN] to show that your message is finished.
10. The # symbol returns; now type in **wa;j228loco.ems** [RETURN] to write

the adjusted file to disc.

11. Exit SID by pressing [STOP]
12. Boot up LocoScript. You may or may not see your new message at the bottom of the screen. If you do not, create a file in group 0 called "READ.ME" - there doesn't have to be anything in it - and reboot the computer with LocoScript. Your message will now appear.

One obvious use for this tip is security - if your name and address is printed on the screen every time you boot up, it would be very difficult for anyone else to prove that it was theirs! Or it could be that you want to identify a disc for some other reason.

Or you could just want to have your computer be friendly to you first thing in the morning!

Michael Wheatley, Derby

**8000 Plus:** A couple of other thoughts: don't use your best start of day disc for this - make a copy of it first, and if successful, make that copy your new start of day disc.

As it stands, this tip works for LocoScript 2.28. Other version owners will have to firstly find out what the name of their .EMS file is - under CP/M, put the LocoScript disc in the A: drive and type **DIR** [RETURN] to find that out - and substitute it as appropriate. It will always be 'Isomething.EMS'.

You may also have to search for the "For the latest information..." text, and make sure you only overwrite that. Do this by typing **d0100 c7ff** [RETURN]. Keep an eye on the text as it scrolls past - and hit [STOP] when the text appears. Note the code number at which the text starts, and follow steps 6, 7 and 8. Write the file to disc under the same name as you found it.

## Quick BASIC

I'm sure that you've occasionally given hints on how to speed up BASIC editing, but I can't seem to find them. Can you repeat them?

Stephen Le Mesurier,  
St Helier, Jersey

**8000 Plus:** With pleasure. Instead of writing PRINT every time you want something on screen, type ? instead - if it is part of a program, you will see that BASIC automatically converts it back to "PRINT". Don't think, though, that you might be able to sneak extra characters into the line this way. The maximum number of characters per line in BASIC is 255, and you won't get any more in by using "?" - you can try, but when BASIC converts the "?" to "PRINT" it will cut excess characters off. Instead of typing REM each time you want a REM statement, use ' (a single quote mark) instead.

To move quickly around a line, use the [FIND] key, followed by a character. The cursor will immediately jump to the next occurrence of that character in that line. Unfortunately, it won't jump backwards.

If you want to go to the end of the line, hit [FIND] twice.

On the other hand, if you want to chop the end off a line, position your cursor over the first character you want deleted, hit [CUT] twice.

Finally, if you want to recall the last command press the left cursor key once. The command will then reappear ready to be edited. For instance, if you type **PINT 2+2** [RETURN] by mistake, and get a syntax error message, hit the left cursor key before you do anything else, then add the **R** to PRINT, and press [RETURN] again.

Be warned: this only works if you have not pressed any other key in the meantime - so don't rely on it.

## Date order

My LocoScript 2 is used mainly for correspondence. I indicate the date by year followed by month, e.g. 899=Sept.89, 90N=Nov 90, although computer afficianados may prefer to go hexadecimal, "1,2,...8,9,A,B,C". All letters to the same recipient are listed on the Disc management screen in correct order of date. If I write more than one letter to the same person in one month, I cheat by using the next month for the second letter, e.g. 912 was written on the 3rd Feb 91, 913 on the 15th Feb - but at least they're still chronological!

E.Rosentiel, London

## Masterful Misfire

I can't seem to make the Masterfile tip "Masterful!" from October's edition work. I keep getting "A:J\*.EMS?". Is there something wrong with my machine?

H C Ewer, Dublin

**8000 Plus:** No, but there is something wrong with ours - a couple of vital instructions got omitted. Here is the full tip:

Start up your PCW by inserting a CP/M disc. When the A> appears type **PIP** [RETURN]. At the **\*\*t** type **m:=a:j\*.ems** [RETURN] followed by **m:=a:submit.com** [RETURN] followed by **m:profile.sub=con:** [RETURN] (yes, that's con:, not com:) followed by the sequence **mf8000** [RETURN] and **[ALT]+Q** together and **[ALT]+Z** together.

Now insert your copy of the Masterfile master disc in place of the CP/M disc, and type **a:=m:\*.\*** [RETURN]. This will overwrite what you have just written - but don't worry.

Now press **[SHIFT][EXTRA][EXIT]** together. The machine will reboot, and automatically present you with Masterfile.

## Back up Oh Master

LocoScript users shouldn't forget to make a back-up copy of their start-of-day disc. It is itself, of course, a copy of the original program disc, but it will almost certainly have been updated with, say, alterations to the standard phrases, printer default settings, paper sizes and templates. The LocoSpell user dictionary is also likely to have been changed.

A corrupted start-of-day disc can be readily replaced with a further copy of the program disc - but it could take a lot of work to tailor this new, virgin copy to the user's specific requirements.

David Landers, Northumberland.



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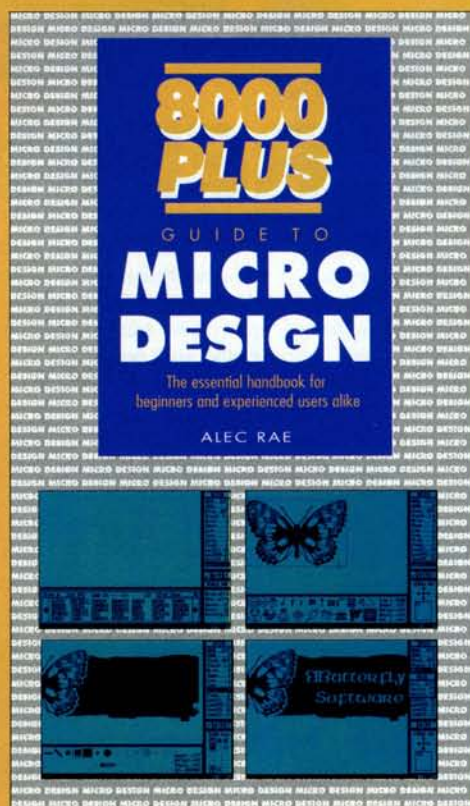
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Welcome to the Good Repairs Guide. In the event of your computer giving you trouble, you will know exactly where to turn to for help. We have tried to indicate the range of services offered by each company, together with a rough idea of how long they will take to carry out a repair; whether they will do on-site repairs (in which they send an engineer

to your computer) bench repairs (where you send the computer to them) or both; whether they will charge for carriage if appropriate; what sort of warranty, cover or other such policy they can provide; whether they are prepared to quote over the phone, and so on. Of course, many of the details given depend on circumstances. Repair times are very

much dependent on the availability of spares and your location, courier charges are naturally affected by where the computer is being carried from and to, and most were loath to give exact repair quotes over the 'phone. Where appropriate, however, most were prepared to discuss the possible price without making a commitment.

## A1 Computer Services

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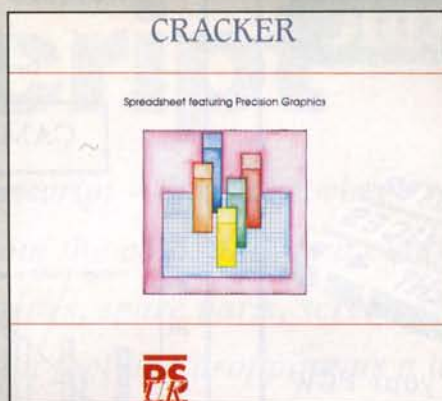
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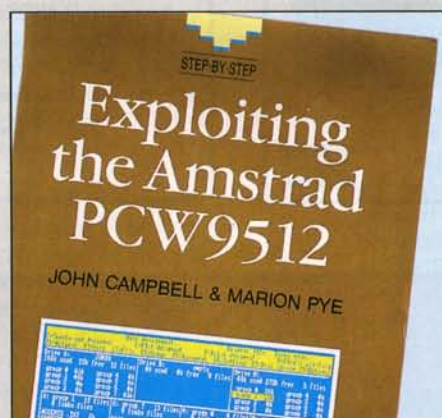
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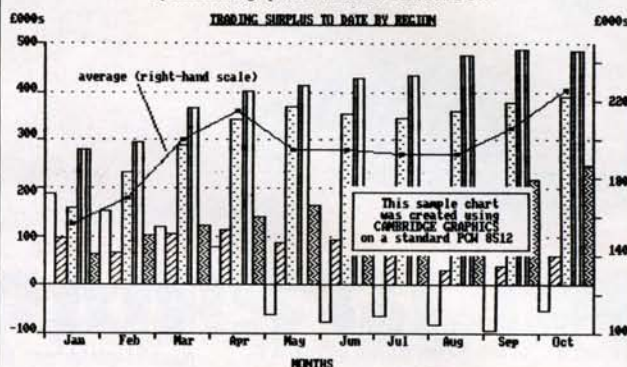


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# Postscript

*Welcome to November's Postscript – the place where you tell us just what you think! Come in from the cold, pull up a chair and read all about price wars, writers' gripes, spare parts, screen clearing, 3 inch discs and more besides. If you feel like dropping us a line, do so, to: Postscript, 8000 Plus, 30 Monmouth Street, Bath BA1 2BW. Sorry, but we just cannot reply to your letters personally*

## Write to reply

Having read Peter Lee's letter in the most recent issue of your magazine, requesting even more articles on how to be a writer, I was very amused to have a flier for Writers News fall from the magazine's pages. Were you trying to tell him something? I hope very much he will subscribe to that particular magazine rather than seeking to clutter up the pages of 8000 Plus with more articles on how to lay out a manuscript, approach a publisher, write a synopsis and so forth. This kind of material is quite simply out of place in a magazine which is supposed primarily to be about actually using the machine. It's not as though there aren't plenty of other magazines and outlets providing the information he seeks and aimed far more specifically at aspiring writers. To be honest, I feel that general articles about being a writer do more harm than good, encouraging people to believe that so long as they have a word processor, absolutely anyone can be a writer, as if talent, imagination and experience don't come into it. My heart sinks every time I read another of Nick Vandome's smug little articles on how he became a freelance writer. Frankly, the world is awash with putative freelance writers, convinced they will make a living by the pen. I rather hope you would do a little more to dissuade them, or else to demonstrate that a PCW is not a passport to instant success. What do I know about it, some will ask? I'm a part-time freelance reviewer, copy-writer and editor who makes most of her living by writing advertising blurbs and by reading other people's hopeful novels for a publisher. I'm well aware of the fact that I'm unlikely to make much of a living simply by penning witty articles and reviews which is why I'm training for a career with a little more bread and butter in it. Whilst I suppose I shouldn't be biting the eager amateur hands which indirectly feed me, I'm also well aware of the fact that it takes more than a fancy typeface and a neatly laid-out page to

make something worth publishing.\* People should not be under the illusion that an Amstrad will solve all their problems and hypnotise publishers and editors into accepting their work. I was, incidentally, very sorry not to see an article from Dave Langford in issue 61. I feel his comments on being a writer provide a very welcome blast of cynicism and realism.  
**Maureen Speller  
Folkestone**

*8000 Plus: We include articles such as the ones you so disparagingly refer to, simply because we are aware that a great many of our readers are freelance writers. I am surprised that you imagine such readers – especially as you are one of them – could really be as naïve as to imagine that we are misleading them in any way; you are (quite rightly) under no illusion as to the struggle involved in trying to get work published, so why do you think that other writers should be any less realistic?*

*As far as relevancy goes, I think you will find that in the majority of cases, there is always a specific portion of the piece given over to practical exercises, showing how to use the PCW to help the writer. Your comment, therefore, about the material being 'out of place in a magazine which is supposed to be about actually using the machine' is in fact, invalid. Even if you aren't a writer, there are still tips and advice within these pieces which could be of help to you in different contexts.*

*If our writing articles did not contain such information, well, I would be more sympathetic to your views. And, as such pieces are not included every month, I don't think we can be criticised for over doing it.*

*Indeed, this was part of the reasoning behind making Langford a bi-monthly column. It does seem rather odd that you condemn the inclusion of one kind of writing article, yet complain about the absence of another; surely double standards are at play here?*

## In the club?

Recent issues of my favourite magazine has seen a welcome increase in articles relevant to my beloved 9512, from how to change your carbon ribbon (even if the innards of mine seem to bear no resemblance to that of your example – thank heavens for Aladdink's replacements) to the most interesting article on how to install a 3.5" drive.

Mind you I think there were a couple of steps missed out – such as replacing the wires removed to separate the two boards after locating the drive – but anyone, like me, seriously interested in getting this goodie for Xmas would have worked that out when their drive arrived.

However your last issue's "Good Repairs Guide" was frustrating – for this reader at least. My 9512 printer, not printing very well, benefited from your article on repairs and the little piece of plastic off a ribbon is now strategically placed giving a better, but not perfect print quality. However I can't help feeling that it is the spring that is at fault and your Guide located a repairer no nearer than Newcastle.

Now I know your rival 'zine mentioned one in Dundee a month or so ago but even that is 90 miles away – Newcastle is over 200 miles away. Surely there is a good, cheap repairer of PCWs nearer me than that? So, do you know of any?

**Kenneth Clark  
Aberdeen**

*8000 Plus: Honestly, we don't keep the names of Aberdonian PCW repairers a secret out of churlishness! If we don't mention one nearer it is simply because we don't know of one.*

*The Repairs guide, like the Club and Training Guide, relies to a certain extent on information sent in from readers – so, if anyone does know of a repairs centre near Aberdeen, please let us know! We'll be only too pleased to add it to the list at the next opportunity.*





## Grammar drama

Do you know of any software company in the UK who are developing a grammar checker for the PCW8512? I'd really like to know, as both Locomotive and Arnor make it perfectly clear that they have no plans for one – despite my attempts to convince them that such a piece of software would have great appeal to us hackers! I'm writing this while on vacation in the UK, and was pleased to find the Smiths bookstore in Crawley carry your excellent magazine.  
**T Benn**  
California

**8000 Plus:** As far as we know, there is no-one out there producing a grammar checker for any of the machines in the PCW range – more's the pity! We understand that this kind of utility is far more widespread among PC word processors. It would be splendid, indeed, to have such a tool. Come on, industry bigwigs, let's have one soon!

## Disc dilemma

What has happened to your disc labels? You did offer these a while ago, and I was wondering if you had plans to do so again. I cannot find any other supplier in your magazine. It would also be useful if labels for the 3.5 disc were on offer. According to you, this will be the disc of the next decade, and I have already installed the internal unit from Silicon City.  
**Trefor Rees**  
Pontyclun

**8000 Plus:** Well, as far as the first point goes, you can still get hold of a five-pack of 8000 Plus disc labels by sending a cheque or postal order for £1.00, made payable to Future Publishing, to 8000 Plus Disc Labels, The Old Barn, Brunel Precinct, Somerton, Somerset TA11 7PY. And yes, we do have plans to produce labels for the 3.5 inch disc – in the new year. Keep your eyes peeled, Mr Rees!

## PIPPed at the post?

In Postscript in the September issue, you tell Dr Eban to copy DIR.COM from side 3 of the CP/M disc into the memory using PIP., but my disc 3 doesn't have that file on it – it is a new disc, because my PCW8512 is new. Where can I find it?  
**David Malyon**  
Herne Bay,  
Kent

**8000 Plus:** OK, David, if you have a PCW8000 series machine, you will find the utility PIP. on the reverse side of the supplied LocoScript disc, rather than on side 3 of the CP/M (or second) disc. You will then be able to follow the instructions as shown.

## Bailing out

I write to you in some distress. After three and a half years my PCW8512 built-in printer has a decidedly limp bail bar. The small spring that controls the bail bar return is broken and spares seem not to be available in the colonies. There have been unsuccessful attempts to locate such a spare in both Auckland and Christchurch. I write this on a borrowed Super 5 EP-2000. Not without some difficulties! Can you help me please?  
**Les Gilchrist**  
Hamilton, New Zealand

**8000 Plus:** But of course – contact CPC Spares at PO Box 158, Preston, Lancs, telephone (0772) 555034. I believe that they will be able to supply the part you require for under £7.00. Can't be bad!

## Even reasons?

I ventured into the world of word-processing 15 months ago with a PCW 9512, discovered 8000 Plus a year later and am quite impressed by both. With interest rapidly increasing in LocoScript, and thoughts of writing my own simple programs in Basic, I am now contemplating fitting an internal B drive. This would be a 3.5" drive from Silicon City, as detailed in the June issue of 8000 Plus, for the following reasons:-  
a) There are many advantages of having two drives and it would make more sense to fit this rather than another 3" drive at this time.  
b) Using DISCKIT, I could copy my existing 3" file discs from the A drive, on to 3.5" discs on B drive. This would include LocoScript and CP/M start-up discs as a future back-up.  
c) In the event of my A drive requiring replacement at a later date, this could then be replaced by a similar A 3.5" internal drive. It would then leave me with a complete 3.5" system, including start-up discs.  
Apart from the slight inconvenience of having two disc sizes at present, does this logic make sense to you, or am I missing an obvious drawback?

**Roy Graham**  
Halesowen

**8000 Plus:** No, Roy, you seem to have come up with most of the good reasons for making such an upgrade. Another good one is that 3.5 inch discs are a good deal cheaper, and given that the new PCs are in this format, software will soon be widely available on the larger disc size. And, of course, you are instantly in a better position to transfer from CP/M to MS-DOS (with the appropriate software). Go for it!

## Label stable

I am a senior citizen, interested in photography and I wanted to know

more about MicroDesign, to put titles on my films through my daughter's PCW 8256 LocoScript 1. The disc I have received with the 8000 Plus Guide to MicroDesign is no use to me unless I purchase the Master disc (according to your reply to Mr Ned Potter). However, please let me know if it is possible to use the MD2 Master Disc direct on my computer, or would I have to purchase further software?

**F Barber**  
Mossley, Lancashire

**8000 Plus:** No. Once you buy MicroDesign, all you have to do is to make a working copy of the master, and then you are ready to go. You will then be able to make use of the book and the disc which you have bought from us.

## My whirred!

When I have loaded up a program or finished saving a file in my 8256 (with a 756k RamPac) I have noticed that the whirring sound from the disc drive continues after the light goes out. When copying discs (in CP/M or from LocoScript 2) the prompt to 'Insert disc to read/write' appears before the whirring stops. Should I wait for the sound to stop before ejecting the disc? Many thanks for a really informative magazine.

**Peter Betts**  
Exeter

**8000 Plus:** Yes, Peter, it's always best to wait; there is nothing more frustrating than corrupting a disc, and this is one tried and tested way of doing it!

## Bluffer's guide

When teaching someone how to bluff it is vital that what is taught is correct. The acronym "ASCII" stands for American Standard Code for Information Interchange. The text on page 23 of the October issue twice left out the word "Standard". Incidentally, the BASIC instruction ASC is so called because it gives the ASCII value of the character supplied.

**Alan Baker**  
Bournemouth

**8000 Plus:** Well thank you!

## Are we compatible?

With the increasing number of hardware add-ons, not to mention software, the spectre of incompatibility begins to cast its shadow over the PCW scene. I came upon this first with the Isenstein Ramcard, when I wished to invest in Sprinter. Having opted for the latter, it then appeared that the popular SCA Ram Pacs were also incompatible, as you indicated in your article on installing Sprinter. I am now looking at interfaces



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with a view to getting a high quality printer, but then it was suggested that the SCA Professional Plus (with clock) might also cause problems with Sprinter. However, SCA have been most helpful – as indeed have Cirtech – in looking at the problem, and it begins to look as if this will be OK after all. Now for a hard disc. I feel it would be most helpful if you could publish any information which has come to your notice regarding the compatibility, or lack of it, between these and other popular hardware bits and pieces, as well as with various software packages. CP/M and LocoScript do it of course – but what if you have them on the same disc? Flipper 3 should get around that, but what about the new GEM hard disc from Cirtech? More incompatibilities?

**Michael Harris**  
Bognor Regis

**8000 Plus:** *Compatibility is one of the first problems that people seem to encounter with new products (after the usual teething troubles with setting up). I am ever grateful to the companies you mention for being prepared to tell you whether their product is compatible with x, y or z – we can't always be expected to provide the answer! I do think it would be a good idea for manufacturers to include details on compatibility somewhere in the documentation – it would save so much time and trouble! However, I can tell you on this occasion that Gem is NOT compatible with Flipper; as far as LocoScript and CP/M go, they can happily co-exist, but you need to choose one or the other as the default program. If you wish to change the default, simply hold down the [ALT] key while booting up. Anyway, if you want to find out more about Gem, turn to page 50 for a full review!*

## Chart success

Some many moons ago, when LocoScript 2 was an innovative piece of software, 8000 PLUS had the brilliant idea of producing a chart to be 'The Guide at Your Side', which was (and is) most useful. I suggest that a similar chart for Micro Design 2 would be similarly helpful and would certainly be most welcome.

**A G Mather**  
Guernsey

**8000 Plus:** *We agree – and have already done something about it! All you have to do is to wait until we tell you what that something is. Thanks for your letter, AG.*

## Cost of loving

I purchased my last 8000 Plus this evening, I nearly choked at WH Smith's when the assistant had to coax a further 25p from me on top of the two pound coins I offered and expected change from. Two pounds twenty-five

pence is just too much, you have just met customer price-resistance. You produce a wonderful magazine; varied, up-to-date and immensely informative, it's good, even great; but not that great. Should this hike in the cover price presage the introduction of a cover disc, with the usual mix of games, utilities and demos, we, the buying public, could just about stomach it, but not without. Don't worry, I shan't be switching my allegiance to the official PCW magazine, I'm annoyed not desperate!

**Andrew Dawn**  
Derby

**Simon Stansfield, Publisher of 8000 Plus, replies:** *Unfortunately, our costs continue to rise. The price of print does not remain static, nor is it easy to produce quality colour pages at any lesser cost. I personally believe – and I feel confident that readers will agree with me – that 8000 Plus still offers tremendous value for money, especially when compared to other media. Its shelf life is permanent; many of our readers write in to tell us that they are still gleaned hints, tips and advice from issue one of the magazine five years ago. We consistently try to deliver the best product at the most realistic price, covermounting the issue with a 3 inch disc would merely send costs soaring.*

## Four thought

I want to enquire about the significance of those cryptic 4-character codes at the right-hand margin of your ever-so-clear LISTINGS. I imagine that they are some sort of accuracy check, but how do they work? If you have published anything on this during this current year, it will suffice if you can provide the reference. Otherwise, I should be grateful to be informed more fully. Your magazine continues to be excellent and useful.

**Peter Hansell FRCP FRPS**  
Bath

**8000 Plus:** *The numbers on the right are called Checksum numbers; you don't need to type them in when you type in the listing, but they form the Check3.BAS listing published in our July issue. I refer you back to that very issue for more details (page 65) and also to the 'How to type in a listing' box which appears in Listings every month.*

## Clear off!

There is one thing I would like to have an answer to. When I 'try' to do a bit of programming in CP/M/Basic, I usually end up making a hash of the whole thing (with a screen full, of course) and it would be easier to start again or clear the screen. I suppose it's there somewhere in the manual. I have tried CS and a few other things that came to my head – no go. Save my sanity the next time I

venture into 'CP/M land' please!

**G A Landragin**  
Chalfont St Giles

**8000 Plus:** *OK, here we go. If you are in BASIC, type the following PRINT CHR\$(27)+"E"+CHR\$(27)+"H" If in CP/M, follow this keypress sequence:*

*[EXIT]E[EXIT]H[RETURN].*

*Both courses of action will deliver you safely to a prompt at the top left hand corner of the screen. Long live your sanity, GA!*

## Going spare

Recently the daisywheel printer of my faithful 9512 started producing poor quality print, missing and half formed letters, faint print and so on. So, a quick search through my back copies to find the article on 9512 printer faults, which appeared in issue 55 of April this year. Following your easy guide I quickly established that the fault was indeed a cracked armature. A phone call to CPC Spares, on the number given in your article, found that they had the part in stock at a price of £6.55 inc. VAT and postage. I immediately sent off a cheque and within 2 days the replacement armature had arrived. Pleasant to deal with a company who do not wait 7 days or more for a cheque to clear. Again following your article the part was replaced quickly and without fuss (except for that damned E-Ring clip!). Result, crisp clear type again, hopefully for the 4 years the old one lasted. So, thank you to CPC Spares for their quick and efficient service. And to yourselves for producing both an informative and practical magazine. Please keep up the articles on DIY repairs and add-ons as these are certainly both a time, and more importantly, huge money saver. I've no doubt that had I taken my printer to a dealer or repair centre, I would have had to multiply the £6.55 I spent by 10.

**Dave Jones**  
Derbyshire

**8000 Plus:** *Thanks, Dave; these features do seem to have become very popular with our readers, and it makes it all the more worthwhile to run them when we know we have the support of decent suppliers such as CPC.*

## Feeling the inch

Is there going to be a shortage of 3" discs? What are we going to do?

**Helen Cox**  
Middlesex

**8000 Plus:** *It does seem as though the 3 inch disc is on its way out – slowly. I'm not suggesting that all 27,000 of you go out and buy all the stocks available, because a true scarcity will not happen for many months – dare I even say a year? Mind you, it could give people a first class idea for Christmas presents!*



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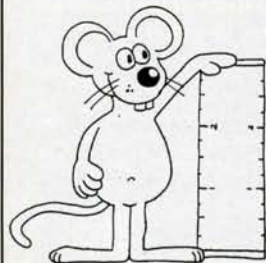
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# Next month!

Christmas comes but once a year – and next month, it's that time again! In true 8000 Plus style, we'll be taking a nostalgic look back over 1991. We reckon that the past twelve months have been some of the most influential ever to be seen by the PCW industry – and we'll be telling you why. Plus, we take a sneak preview into the coming year. What will it hold for the PCW? Join us in December for the full story!

## Write to Unite!

If you are doing any form of freelance writing, you'll be pleased to hear that there is a solution to your often lonely existence in front of the PCW! You will be relieved to know that there are several organisations set up specifically to unite the nation's scribes, which provide valuable sources of help and advice for a range of topics. Not only can you get to know other writers, but you can also find out useful information about rates of pay, copyright laws, and all manner of related topics. Don't miss Andrew Bibby's essential round-up of contacts!

## The Good Book

Next month, we'll be taking a look at a brand new program from the Bible Society. Called Bibliotec Wordkey, it provides you with the first ever computerised index of the Good News Bible. Bibliotec Wordkey includes a staggering 212,800 Bible references, and takes the strain out of wading through a hefty concordance. So, if you'd like to speed up your Bible Study, order your copy of December's 8000 Plus now!

## Chips are Up

With all the fuss over the new PCWs, some of you may be feeling a little left out. Next month, we have a special step by step guide for PCW8256 owners. We'll be showing you how to add extra memory chips to your 8256, in order to make it as big and beefy as its elder cousins. It's simpler than it sounds, and it will give you that all-important extra space for those larger PCW programs. See you next month!

## The December issue of

# 8000 PLUS

is on sale from  
**25TH NOVEMBER**  
Order your copy now – using the coupon on page 46!



*Win Cirtech's brand new 20 Megabyte hard disc in this month's fabulous competition!*

# Competition

At a time when the entire PCW market seems to be in a state of suspended animation, awaiting details of the new PCWs, at least one company has had enough confidence in the existing machine to come out with a major new product.

Cirtech, the Scottish based company, famed for such innovative products as Sprinter and the Diamond hard disc, have just completed work on Gem – the first PCW hard disc to retail at under £200.

This could well be the vital breakthrough needed to introduce PCW owners to hard discs on a large scale. Probably the main reason why most PCW owners have not invested in a hard disc before is because they can't afford them.

The convenience of having a hard disc is such that once you have used it for a week you won't be able to live without it.

But to the PCW owner, up till now, to buy a hard disc would involve spending more than the cost price of the PCW itself – a difficult purchasing decision to justify for many.

To date, the cheapest hard disc available for the PCW was SCA's Vortex. When it was released at the beginning of the year, the price tag of £350 was regarded as a modest one. But, just as computers continually get

smaller and smaller, the price of this kind of hardware can travel in the opposite direction to the rest of inflation and come down. The appearance of Cirtech's Gem on the market, at that price, is likely to cause a major shake-up of the entire market.

So, why invest in a hard disc? Well, like most significant PCW add-ons, the benefits are easier to assess once you actually own one.

If you have ever lost a vital disc, if you are frustrated by the time that it takes to access your files or if you are weary of endless disc swapping, then the addition of a hard disc to your PCW is a perfect solution.

What Gem gives you is the ability to really organise your entire working practices. With Gem, everything you need is stored neatly at your fingertips. All your programs can be kept on the disc along with every text, graphics, database or spreadsheet file you have ever created. You can use both LocoScript 2 and CP/M programs with ease.

And a hard disc will actually speed up the operation of many of your programs. Loading and savings files is substantially quicker from a hard disc.

Gem differs from some hard discs for the PCW in that it does

not require formatting. This means that the already trouble-free installation program becomes still simpler. Gem comes with its own expansion box which can be attached to the PCW's expansion slot at the back of the machine.

Because it has a through connector, Gem can be used in conjunction with add-ons such as a Rampac or a handscanner.

To use Gem, all you have to do is to plug the ribbon cable into the appropriate slot on the back of the PCW. The first time you use the Gem hard disc, you have to go through a simple, once-only set-up program. After that all you need to do is switch on and you are ready to go.

A hard disc is most useful when it is efficiently organised by the user and Gem provides some useful utilities to help you do this properly.

And, the best news of all is that we have one Cirtech Gem up for grabs in this month's Back Page competition!

All you have to do is to supply the answer to a none-too-taxing question and send it, on a postcard, to Gem Competition, 8000 Plus, 29 Monmouth Street, Bath BA1 2BW. So, what is the name of the clip-on hard disc which is also made by Cirtech? Easy! Good luck one and all...



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